

**YEDİTEPE UNIVERSITY
GRADUATE SCHOOL OF EDUCATIONAL SCIENCES**

**THE RELATIONSHIP BETWEEN UNIVERSITY STUDENTS'
DIGITAL GAME ADDICTION,
ATTACHMENT STYLE, AND EMOTION REGULATION LEVELS**

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YEDITEPE UNIVERSITY
INSTITUTE OF EDUCATIONAL SCIENCES
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COUNSELING

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BY

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ABSTRACT

This research was conducted to examine the relationship between digital game addiction, attachment styles, and emotion regulation levels among university students. This study also aims to examine whether digital game addiction, attachment styles, and emotion regulation levels differ according to demographic variables (gender, age, parental marital status, daily digital gaming duration, preferred type of digital game, age of starting digital gaming, preferred device type for gaming).

The study was conducted using a correlation survey method and collected through convenient sampling. The sample group of the research consisted of 314 undergraduate students ($N_{\text{females}}=158$ females, $N_{\text{males}}=156$) studying at private and public universities. Research data were obtained using a demographic information form prepared by the researcher, the Digital Game Addiction Scale for University Students (Hazar & Hazar, 2019), the Three-Dimensional Attachment Styles Scale (Erzen, 2016), and the Emotion Regulation Questionnaire (Totan, 2015). In the study, an Independent T-test was used for comparisons between two groups, One-Way Analysis of Variance (ANOVA) was used for comparisons of three or more groups, and Pearson Correlation Analysis was used for examining the relationships between scales. According to the research findings, a strong positive correlation between Excessive Focus and Procrastination and Withdrawal and Craving indicates that symptoms of digital game addiction are closely related to each other. This relationship underscores the addictive effects of digital games, emphasizing their extensive impact on individual behavior and experiences, while the negative relationship between secure attachment style and symptoms of digital game addiction highlights the potential of healthy social relationships and secure attachment to reduce addictive tendencies. On the other hand, the presence of a positive correlation between avoidant and anxious-ambivalent attachment styles and symptoms of digital game addiction suggests that these attachment styles may be psychological factors that increase the risk of addiction.

Keywords: Digital Game Addiction, Attachment Styles, Emotion Regulation, University Students

ÖZET

Bu araştırma, üniversite öğrencilerinin dijital oyun bağımlılığı ile bağlanma stilleri ve duygu düzenleme düzeyleri arasındaki ilişkiyi incelemek amacıyla gerçekleştirilmiştir. Bu çalışma ayrıca dijital oyun bağımlılığı, bağlanma stilleri ve duygu düzenleme düzeylerinin demografik değişkenlere (cinsiyet, yaş, ebeveyn medeni durum, günlük dijital oyun süresi, oyun için tercih edilen cihaz türü, dijital oyun oynamaya başlama yaşı, oyun için tercih edilen cihaz türü) göre farklılık gösterip göstermediğini incelemeyi amaçlamaktadır. Çalışma, ilişkisel araştırma yöntemi ile araştırılmış, kolaylıkla bulunabileni örnekleme ile toplanmış ve araştırmanın örneklem grubunu özel ve devlet üniversitelerinde okuyan 314 lisans öğrencisi (158 kadın, 156 erkek) oluşturmuştur. Araştırma verileri, araştırmacı tarafından hazırlanan demografik bilgi formu, Üniversite Öğrencileri İçin Dijital Oyun Bağımlılığı Ölçeği (Hazar & Hazar, 2019), Üç Boyutlu Bağlanma Stilleri Ölçeği (Erzen, 2016) ve Duygu Düzenleme Anketi (Totan, 2015) kullanılarak elde edilmiştir. Araştırmada, iki grup arasındaki karşılaştırmalarda Bağımsız T-testi testi, üç veya daha fazla grubun karşılaştırılmasında Tek Yönlü Varyans Analizi (ANOVA), araştırma sorularının çözümlenmesinde, ölçekler arası ilişkilerin incelenmesi için Pearson Korelasyon Analizi kullanılmıştır. Araştırma bulgularına göre, Aşırı Odaklanma ve Erteleme ile Yoksunluk ve Arayış arasındaki güçlü pozitif korelasyon, dijital oyun bağımlılığı belirtilerinin birbirleriyle sıkı bir şekilde ilişkili olduğunu göstermektedir. Bu ilişki, dijital oyunların bağımlılık yapıcı etkilerinin, bireysel davranış ve deneyimler üzerindeki geniş kapsamlı etkisini vurgulamakla beraber, güvenli bağlanma stili ile dijital oyun bağımlılığı belirtileri arasındaki negatif ilişki, sağlıklı sosyal ilişkilerin ve güvenli bağlanmanın, bağımlılık eğilimlerini azaltabileceği üzerinde durur. Diğer bir açıdan, kaçınan ve kaygılı-kararsız bağlanma stilleri ile dijital oyun bağımlılığı belirtileri arasında pozitif korelasyonun varlığı, bu bağlanma stillerinin, bağımlılık riskini artıracı psikolojik faktörler olabileceğini düşündürmektedir.

Anahtar Kelimeler: Dijital Oyun Bağımlılığı, Bağlanma Stilleri, Duygu Düzenleme, Üniversite Öğrencileri

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CHAPTER I

INTRODUCTION

1.1. Problem

Games have been used as a means of socialization for years. With advancements in technology, the use of games as a tool for socialization has evolved over time. Nowadays, digital games and virtual worlds have replaced physical games. Digital games can be defined as software programs that involve interaction between individuals or between an individual and artificial intelligence, incorporating elements of competition, ambition, and entertainment (Sağlam & Topsümer, 2019). Digital games have been present in the entertainment industry since the 1950s. They have been developed by adapting systems like Atari for use in other platforms. Since their inception, digital games have garnered significant interest, with many countries such as China, the USA, and Japan investing in them. The popularity of digital games varies depending on their genres (such as action, adventure, role-playing, sports, and strategy games) (Günay, 2011).

Initially appearing entertaining and educational, digital games have gradually begun to pose problems for individuals. This can be attributed to the fact that some people play games rarely, while others disrupt their daily routines. The excessive spending of money and time on games by players has led to the emergence of the concept of game addiction. Some research indicates that game addicts struggle to maintain their daily routines due to psychological and social issues (Griffiths & Meredith, 2009). Digital game addiction is not classified among diagnoses in the DSM-5, but it is addressed under internet gaming disorder. The diagnostic criteria established by the APA show that addiction to games adversely affects individuals' lives mentally, physically, and socially, akin to physical addictions. Individuals may experience situations such as missing a significant portion of their daily lives, continuing gaming behavior despite being aware of its negative consequences, and loss of daily functionality (APA, 2013).

In 2023, the number of gamers in our country reached 47 million, with records showing that 45% of them are female and 55% are male. It is predicted that the number of digital gamers will continue to increase steadily in the coming years. According to the

relevant report, gamers are primarily clustered in the age groups of 16-24 and 25-34, with university students being the most active users of the internet and those who rely on it the most. This increase is expected to contribute to the rise in digital gaming addiction (Türkiye Oyun Sektörü Raporu, 2023).

According to a study, it has been observed that one-fifth of university students are at risk of game addiction and spend at least 1 hour playing games per day. Additionally, it has been found that university students struggle with time management, affecting their physiological, psychological, sociological, and academic aspects of education and daily life (Çavuş, Ayhan, & Tuncer, 2016). These data indicate that digital game addiction is increasing day by day and affecting individuals enrolled in university-level education. Throughout human life, individuals continue to undergo change and development, traversing various developmental stages. Each developmental stage, determined by age, possesses unique characteristics, and physiological and psychological outcomes.

The individuals in the young adulthood stage, which encompasses the developmental period of the university students constituting the sample of this study, are in a phase where physical and sexual development is completed, and processes of higher-level cognitive functions such as planning, impulse control, executive function, and reasoning, for which the prefrontal cortex is responsible, are completed. During this period, individuals' brains are preoccupied with careers and future plans. While trying to develop their social skills within groups, they also strive to make professional choices (Özbey, 2019). Individuals in the university age experience processes such as coping with stress, adapting to loneliness, and maturing while striving to become adults and experiencing relationships with people from different cultures. They also engage in digital games both to relax and socialize, as well as to make new friendships (Özgüven, 1992). It is considered important to identify the factors causing digital game addiction and take measures to update family education platforms and curriculums.

Playing games is one of the coping strategies developed by some individuals to deal with negative emotions (Savcı & Aysan, 2017). An individual grappling with negative emotions may struggle to control their behaviors. In such cases, attachment styles come to mind, determining individuals' coping strategies in negative situations (Cooper, Shaver, & Collins, 1998). First proposed by John Bowlby in 1973, attachment is an innate tendency inherent in human nature, strongly manifesting itself and focusing on the emotional strength

of the relationship between mother and baby, assisting the baby in confidently continuing its development with security (Bowlby, 1988). Although the first bond is typically formed with the mother after birth, attachment continues to develop with other individuals such as the father, siblings, and caregivers as time progresses (Ateş & Erdem, 2020).

This study is approached within the framework of Ainsworth's Three-dimensional Attachment Model, which focuses on the relationship between the infant and the caregiver. Ainsworth, who examined the mother-infant relationship more closely, observed moments when the baby was separated from and reunited with the mother, based on what she called the "Strange Situation Experiment," and developed a three-dimensional attachment model consisting of secure, avoidant, and anxious attachment styles (Ainsworth M. D., 1989). According to this model, infants who can reach their caregivers whenever they need and feel that they are always present develop secure attachments. Infants who perceive that caregivers reject contact when desired develop avoidant attachment, while infants who do not want to be separated from caregivers and become restless when apart are described as having anxious/ambivalent attachment styles (Turan Akdağ, 2011).

The attachment established with the caregiver during infancy continues to manifest itself when the individual becomes an adult. Individuals who have experienced secure attachment in the past also harbor positive perceptions towards themselves and those around them in adulthood. They do not avoid forming relationships and develop confident, outgoing traits in their social environment (Kara, 2019). An individual experiencing a preoccupied/anxious attachment style may have negative thoughts about themselves but positive thoughts about others. These individuals may not see themselves as worthy of love and may exhibit obsessive behavior towards their intimate partners. Individuals with an avoidant attachment style have negative perceptions of others but positive perceptions of themselves; they see themselves as worthy of love. However, they believe that others will distance themselves from them (Çelimli, 2022). College students experience a developmental period that involves leaving their homes and adapting to a new life. This period encompasses numerous interpersonal relationships, and it is known that individuals' attachment styles play a significant role in these relationships. The idea that attachment can take shape in various stages of life, with an impact on each stage, has increased the importance of this study.

In the literature, studies examining the relationship between attachment styles and the variables discussed in this research reveal several key findings. Kocairi et al. (2020) investigated the relationship between high school students' attachment styles and technology addiction. They concluded that individuals with anxious and avoidant attachment styles did not influence digital game addiction. Conversely, Çiftçi (2021) examined the relationship between internet game addiction, attachment styles, metacognitions, and adverse childhood experiences, finding that participants' game addiction was predicted by adverse childhood experiences and anxious attachment.

Furthermore, a study by Kır et al. (2021) explored the psychological resilience levels of middle school students in terms of attachment styles and emotion regulation skills. It was determined that functional and dysfunctional emotion regulation partially mediated the relationship between anxious attachment style and psychological resilience. Another study examining the attachment styles and emotion regulation skills of children aged 4-5 found that as children's secure attachment scores increased, their emotion regulation skills also improved (Tulpar et al.,2020). When examining other studies on attachment styles, Gediz et al. (2024) investigated the relationship between attachment styles and academic perfectionism. Tunç and Bulut (2024) examined whether attachment styles and personality traits of medical students influenced their interpersonal sensitivity. Another study explored the relationship between attachment styles and attitudes toward marriage, finding a positive correlation only between secure attachment and attitudes toward marriage (Majidova & İpek, 2020).

The need for attachment, which guides behavior and contributes to healthy development, is a condition inherent in an individual's neural structure. Consequently, the ability to regulate one's own emotions, to have self-awareness, and to engage in an empathetic evaluation process are associated with secure attachment. When examining the theoretical relationship between attachment and addictions, it is emphasized that emotion regulation strategies are one of the fundamental building blocks in this relationship. Research indicates that a secure attachment style enables individuals to effectively utilize emotion regulation strategies, such as closeness and competence, thereby playing a protective role against addiction. Conversely, insecure attachment styles are said to predispose individuals to addiction (Sümer et al.,2015).

Sensory perception, feelings, impressions aroused by specific objects, events, or individuals in one's inner world, and the ability to evaluate people morally or aesthetically, defined as emotions, occupy an important place in human life in changing life conditions. Individuals need emotional regulation skills throughout their lives in order to know, regulate their emotions, and continue their lives by being aware of the emotions of those around them (TDK,2024). Emotions serve two functions for individuals: directive and evaluative, enabling them to take action and meet their needs. If an individual's needs are met, positive emotions emerge; if not, negative emotions arise. Consequently, the individual either distances themselves from their emotions or experiences them. In other words, positive emotions that provide pleasure to the individual intensify the need to experience the emotion, while the state of avoiding negative emotions that cause pain leads the individual to regulate their emotions (Werner & Gross, 2010).

Emotion regulation involves environmental and individual adjustments necessary for observing, evaluating, and altering responses perceived as emotional by individuals. Since ancient times, individuals have been researching how to regulate their emotions. Emotion regulation, used for both positive and negative emotions, can sustain, enhance, inhibit, or suppress emotional arousal. Thus, the individual can cope with the relevant emotion or situation and engage in the process of re-regulation (Thompson, 1994).

When discussing emotion regulation, it is important to mention the widely used process model. In this model, emotion regulation involves five processes: situation selection, situation modification, attentional deployment, and cognitive change processes, which are used before emotions have fully emerged, as precursor-focused strategies to alter the emotional impact of an event. The process called response modulation, on the other hand, belongs to the class of response-focused strategies and is used after emotions have emerged to manage the physiological, behavioral, and social dimensions of the emotion's impact (Gross, 1998).

After the COVID-19 pandemic in 2019, both globally and in our country, as young people entered the quarantine period, socializing began to increase in the online environment. This situation has led young people to spend a lot of time playing digital games and become isolated from social life. Consequently, this has caused an increase in gaming addiction among individuals in our country and worldwide (Aykut & Soner, 2020). Based on the pandemic, it is thought that reducing individual contact to decrease the risk of

transmission could affect attachment styles. Additionally, spending long periods at home, being away from loved ones, and the restriction of social activities have caused changes in individuals' emotional states (Kahraman et al., 2020). Upon reviewing the relevant literature, it has been determined that the number of studies examining the relationships between digital game addiction, attachment styles, and emotion regulation variables is limited. When looking at domestic studies, Keşir (2023) focused on an adolescent sample group, Çiftçi (2021) on an adult sample group, Musluoğlu (2016) on a high school sample group, and Köksal (2015) on a middle school sample group, examining the relationship between attachment styles and digital game addiction. In international research, Salehi et al. (2023) examined the relationship between variables in adolescent and young adult sample groups, Monacis et al. (2017) in an adult sample group, and Lin et al. (2011) in a high school sample group.

When looking at domestic studies, Kaymakçı et al. (2022) examined the relationship between digital game addiction and emotion regulation in a university student sample group, while Uçur and Dönmez (2021) and Eker and Taş (2022) focused on an adolescent sample group. In international research, Amendola et al. (2019) and Liu and Ma (2019) investigated this relationship in adolescent sample groups, and Yen et al. (2018) examined it in a young adult sample group.

In domestic studies, Erincik et al. (2022) examined the relationship between attachment styles and emotion regulation in a high school sample group; Tulpar et al. (2020) in a 4-6 year-old sample group; Öner and Asıcı (2020) in an athlete sample group; and Karabacak and Demir (2017) in a university student sample group. In international research, Oshri et al. (2015) investigated this relationship in a child sample group, while Grisham et al. (2018) focused on an adult sample group.

When looking at the relationship between digital game addiction, attachment styles, and emotion regulation levels, the literature shows that while the population of Güntay's (2019) study consisted of high school students, Liu and Ma (2019) included variables such as attachment styles, emotion regulation, and networking sites addiction in their study conducted abroad. In the literature, it is generally observed that variables such as gender, age, and family education level are the main focus of research. This has piqued the researcher's interest in including topics such as the preferred type of game, parental status, device used, time spent playing, and age of starting to play within the scope of the study.

Additionally, most research has been conducted on adolescents, with a limited number of studies involving university students. Barut (2019), in a study with adolescents, suggested that the research should be conducted across different age groups and that demographic variables such as the type of game and device used should be included in the study. Similarly, Kılıç and Koç (2024) conducted a study focused on the adolescent age group, using socio-demographic variables such as gender, age, and type of high school. However, no research was found in this study that examined the relationships between the dependent and independent variables and various socio-demographic variables.

Therefore, this research has been conducted with the aim of supporting experts working in this field and, simultaneously, addressing the gap in the literature. As outlined above, the problem of this research can be articulated as follows: *Is there a significant relationship between digital game addiction, attachment styles, and emotion regulation levels among university students?*

1.2. Purpose of the Study

The primary aim of this study is to investigate the relationship between university students' digital game addiction, attachment styles, and emotion regulation levels. Another aim of the research is to examine the differences in university students' digital game addictions, attachment style, and emotion regulation levels according to different demographic variables (gender, age, parental marital status, daily digital gaming duration, preferred type of digital game, age of starting digital gaming, preferred device type for gaming). In this context, the digital game addictions, attachment styles, and emotion regulation levels of 314 state and private university students during the academic years of 2022-2023 and 2023-2024 were collected through relevant scales and sought answers to these sub-problems;

Q1) Do university students' digital game addictions differ according to different demographic (gender, age, parental marital status, daily digital gaming duration, preferred type of digital game, age of starting digital gaming, preferred device type for gaming) variables?

Q2) Do university students' attachment styles differ according to different demographic (gender, age, parental marital status, daily digital gaming duration, preferred type of digital game, age of starting digital gaming, preferred device type for gaming) variables?

Q3) Do university students' emotion regulation levels differ according to different demographic (gender, age, parental marital status, daily digital gaming duration, preferred type of digital game, age of starting digital gaming, preferred device type for gaming) variables?

Q4) Is there a significant relationship between university students' digital game addictions, attachment styles, and emotion regulation levels?

1.3. Significance of Study

In the aftermath of the COVID-19 pandemic, governments implemented measures and regulations to prevent the spread of the disease. These included suspending education and utilizing online-based remote learning models, banning close contact due to mandatory 'social distancing', restricting entry to both open and closed spaces, and altering work routines (Kırık & Özkoçak, 2020). Since individuals are inherently accustomed to cohabitation, socialization, communication, and physical contact, this period of isolation led to psychological distress (Marsden et al.,2020). The closure of factories, restaurants shutting down due to fears of contamination from food and beverages, and job losses across various sectors heightened anxiety and hopelessness among young people, particularly those who had enrolled in university with the hope of securing a career.

With the onset of these challenges, university-aged individuals increasingly turned to digital games to suppress their emotions, ignore socialization problems, find satisfaction in virtual friendships, and overlook their anxiety about the future. The transition to virtual platforms for education, shopping, entertainment, and other activities, driven by pandemic-induced lockdowns, combined with the appeal of digital activities to young people, led to a significant increase in such engagements (Király et al.,2020). According to the April 2020 Digital Report jointly published by the UK-based social media agency 'We Are Social' and the social media management tool 'Hootsuite', individuals spent 35% more time playing

games during the COVID-19 pandemic compared to previous years (Wearesocial,2024) Another study indicated that the 18-24 age group saw the highest increase in gaming frequency (Aktaş & Bostancı, 2021). The rise and proliferation of artificial intelligence are expected to further increase the rates of digital game addiction in the coming years. The excessive time young people spend on digital platforms negatively impacts their career, social, emotional, and physical development. This study aims to identify and raise awareness about the socio-demographic variables contributing to digital game addiction among students, inform families about this issue, and support experts in their development. In the literature, Okur (2024), examined the relationship between digital game addiction and perceived stress levels among university students, using socio-demographic variables such as gender, university name, and income level. To ensure a preventive and detailed approach, this study incorporates different demographic variables such as the type of game, parents' marital status, preferred device for gaming, time spent playing, and the age at which gaming started. When reviewing the literature, it has been observed that there is a limited number of studies abroad that simultaneously address digital game addiction, attachment styles, and emotion regulation variables, and the number of studies conducted domestically is almost nonexistent. Furthermore, the studies conducted on the relevant topic have mainly focused on adolescents, with little to no research conducted specifically on university students. Therefore, it is hoped that examining the relationship between these variables, especially the observed gap within the domestic context can be addressed through this research. It has been noted that research conducted abroad targets different populations, and conducting studies with Turkish university students could serve as a valuable resource for various other studies. Additionally, given the increasing digital game addiction in parallel with technological advancements, it is believed that the research will be important for identifying factors that may contribute to digital game addiction and taking preventive measures.

1.4. Assumptions

1. It is presumed that participants in the study respond genuinely and neutrally to the measuring instruments, aligning with their genuine emotions and thoughts.
2. It is also presumed that the validity and reliability findings from prior assessments of the scales utilized in the research remain applicable at present.

1.5. Limitation

This study is restricted to students enrolled in both private and public universities throughout the academic periods of 2022-2023 and 2023-2024. The study's outcomes are confined to the assessments provided by the Digital Game Addiction Scale for University Students, the Three-Dimensional Attachment Styles Scale, and the Emotion Regulation Questionnaire. Furthermore, the demographic information form formulated by the researcher in this investigation is constrained to socio-demographic factors including participants' gender, age, parental marital status, daily digital gaming duration, preferred type of digital game, age of starting digital gaming, preferred device type for gaming.

1.6. Definition

Digital Game Addiction: Game addiction involves excessively and compulsively engaging in gaming activities for prolonged periods, disregarding adverse effects on personal life. Prioritizing gaming over social and academic commitments persists despite acknowledging its detrimental impact (Hazar & Hazar, 2019).

Attachment Style: Attachment Style is concerned with how a person perceives themselves and their surroundings, influencing their decisions, coping skills, and romantic and close relationships. Ainsworth, who based attachment patterns on the relationship between caregiver and infant and argued that these patterns continue throughout life, divided attachment into three dimensions: secure attachment, anxious attachment, and fearful-avoidant attachment. (Ainsworth, 1989).

Emotion Regulation: Emotion regulation entails the capacity of an individual to manage their emotional reactions, recognize their potential emotional responses, evaluate them, and adjust them to attain their objectives. The principal aim of emotion regulation is to change emotions (Gross, 1998).

1.7. Abbreviations

DGAS: Digital Game Addiction Scale for University Students

TDASS: Three-Dimensional Attachment Scale

ERQ: Emotional Regulation Questionnaire



CHAPTER II

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1. Digital Game Addiction

2.1.1. The Historical Development and Definition of the Game

Throughout history, games have been defined in various ways by people, and when we look back at the past of games, it is evident that they are as ancient as the earliest times of human history. In research, wall paintings depicting two girls playing with bones have been found. When various parts of the world are examined, images of games played with dice, spinning tops, and clapping hands have also been observed (Diken, 2012). The early humans witnessed many events such as war, migration, and natural disasters. In order to cope with these challenges, they needed to observe and mimic natural phenomena. Thus, by imitating animals in nature, they learned to hide and patiently wait, turning their lives into playgrounds akin to the game of hide-and-seek (Hazar,2018). By observing animals and discovering hunting, humans have also discovered role-playing games by watching their own growth or the upbringing of children. They used play to cope with problems, survive, and manage social relationships (Koçyigit et al.,2007).

When we look at different civilizations, in the Egyptian Civilization, items such as dolls, rattles, animal figurines, and wheeled toy chariots have been found in tombs. In the Greek Civilization, games played with balls and hoops have been found. The Greeks, who valued physical health, included sports and racing games in their play. In Roman civilization, traces of wrestling and archery have been seen. Research has revealed that bourgeois families' children had toys, while children from working-class and poor families tended to play more with toys related to professions. In the 17th century, games evolved into skill and talent-based activities. In the 18th and 19th centuries, along with parents working, marbles were played in kindergartens. In the 20th century, toys produced were not primarily focused on children's physical development but rather on keeping children entertained. As time passed, toys began to be designed for both adults and children. For instance, remote-controlled cars, video game consoles... Games have also been used throughout history as a

means to escape the pressures of life. To understand the concept of games in Turkish culture, we can look at the Dede Korkut Tales. In Anatolian lands, children played with toys they made themselves, combining pieces they found in nature. They played games like hide-and-seek, playing house, soccer, and physically demanding games. Some games have been passed down from generation to generation and have survived to the present day (Eni, 2017).

When it comes to the concept of games, numerous definitions have been proposed over time. The reason for multiple definitions is the unique characteristics of each society and the ever-changing and evolving technology. Due to these reasons, the concept of games also continuously evolves. For example, according to Comenius, games are an important tool for learning and education, while according to Quintilianus, games should be given to children as education. Aristotle believes that games prepare children for the future. John Dewey defines games as unconscious behaviors, whereas Huizinga defines them as intentional and rule-based actions. According to Spencer, games are important for expending unnecessary energy, while Gulick states that games involve accomplishing what needs to be done (Ergün, 1980). According to the definition by the Turkish Language Association, a game is described as an enjoyable activity with specific rules that develop skills and intelligence, serving the purpose of spending quality time (TDK, 2024).

Games played to pass the time have specific rules. Games are played in a predetermined area. Each game has its own set of rules and operates within a structure. Time is an important element for the uninterrupted continuation of the game. Thus, the game is played within a certain time frame, and the game can be reset. In other words, another fundamental characteristic of the game is repetition (Huizinga, 2015). In addition to physiological effects such as muscle development, games also have social, psychological, and cognitive effects such as mental development, social relationship development, and creativity (Yalçın & Bertiz, 2019). Furthermore, games provide individuals with opportunities such as education, physical activity, health, self-realization, and leisure time enjoyment. Huizinga evaluated games within a cultural context. He claimed that games played in groups contribute to cultural development. A game should encompass moral, intellectual, and physical values for culture to thrive (Huizinga, 2015).

Traditional games, known as street games, such as jump rope, tag, hide and seek, dice, paper, etc., are outdoor activities. With the advancement of technology, traditional games have also changed, with both the game environment and materials changing while

playing. Thus, games have become a means of socialization and marketing. While traditional games prioritize individuals' social development by facilitating face-to-face interactions, digital games help individuals adapt to the digital environment, allowing them to explore different cultures and socialize (Akgöl, 2019). With the accessibility of the internet and the increasing use of computers, real-life games have been replaced by digital platforms, devices, and games (Simons, 2007).

2.1.2. Definition and Types of Digital Games

Formerly, the location of games, whether indoors or outdoors, used to change physically, but now the location where games are played has changed. Digital games are defined as games that take place through the use of electronic devices such as mobile phones, computers, tablets, consoles, televisions, etc. Digital games can encompass cultural and historical elements, and they can also be defined as the reflection of real life into virtual reality (Sütçü & Sütçü, 2008).

When categorizing digital games, they are primarily classified based on their gameplay and themes. To explain these classifications, we can start with action games. These games, which include speed, movement, and violence, require players to be quick and have sufficient hand-eye coordination to succeed or progress to the next level (Binark et al., 2017). Action games may vary over time and across societies, but examples of such games include titles like 'Call of Duty', 'Marvel's', 'GTA', 'Modern Warfare 3', and so forth. Adventure games include elements such as mystery, exploration, puzzles, problem-solving, and strategic thinking, requiring players to follow a storyline, monitor situations within the game, and take action. Examples of these games include 'Colossal Cave Adventure', 'The Longest Journey', 'The Angel of Death', and so forth. Strategy games involve factors where management is central, encompassing the development of tactics and planning skills. These games typically revolve around themes of winning and territorial occupation, often featuring war scenarios. While similar to puzzle games, where the player can guess the puzzle each time, strategy games offer multiple solution paths, thus ensuring greater continuity. Examples of these games include 'Age of Empires', 'Warcraft', 'Superpower', and 'Civilization'. Another type of digital game, role-playing games, allows players to meticulously design their physical and mental characteristics in a virtual world constructed down to the smallest detail. Examples of these games include 'Sims' and 'The Elder Scrolls V: Skyrim'. Categorized as simulation games, this genre aims to provide players with the closest experience to real life. These

games allow players to use vehicles such as cars, tractors, buses, helicopters, submarines, tanks, etc., with the possibility of acquiring VR headsets, pedals, steering wheels, gears, controllers, and other devices to enhance realism. Examples of such games include 'Flight Simulator', 'F1', and 'iRacing' (Irmak & Erdoğan, 2015). Finally, sports and fighting games are virtual versions of individual or team sports such as football, basketball, boxing, archery, swimming, etc. Players can choose the characteristics of their team or player before starting the game, making these games among the preferred choices. Examples of these games include 'Mortal Kombat', 'Street Fighter', 'FIFA', 'PES', and 'NBA' (Binark et al., 2009). Researchers are investigating the positive or negative effects of digital games on human physiological, psychological, and social states. As the concept of gaming, the notion of play, and the physical structures in which games are played evolve, the depth of research increases as well (Cop & Kablan, 2018).

2.1.3. The Effects of Digital Games on Individuals

Research has revealed that digital games have both positive and negative effects. It is a visible fact that the effects vary depending on the type of game an individual plays and the time spent playing it. Physical games such as hide-and-seek, tag, and dodgeball have been shown to positively influence children's strategy development and thinking skills. In this regard, when digital games are played in a controlled manner, they can positively impact players (Karaduman & Acıyan, 2020).

Looking at the positive effects of digital games, it has been observed that some games stimulate mental processes, promote the ability to remain calm during stressful, acute situations, enhance instant problem-solving skills, and contribute to the development of skills for prolonged concentration. Additionally, individuals develop an open perception of decision-making, planning, teamwork, task delegation, and strategy development while playing games. Moreover, it also affects the development of short-term memory (Bülbül, 2022).

Digital games are played in a competitive environment; as children develop strategies, they experience the pleasure of winning, which boosts their confidence as they win and succeed. Additionally, foreign language-based digital games enhance language learning and help improve imagination positively (Bayırtepe & Tüzün, 2007). When individuals play games for long periods without control, they may encounter the negative

outcomes of gaming. These negative effects can manifest immediately or emerge over time. Looking at the adverse effects of digital games, particularly remaining in the same position and sitting for prolonged periods while playing games can lead to obesity, muscle and skeletal pains, sleep problems, headaches, eye strain, and other physical conditions (Karaduman & Acıyan, 2020).

Another negative impact is the psychosocial and behavioral outcomes of digital games, in addition to their physical effects. Research has shown that violent and negative content in games triggers angry and aggressive behaviors. These types of games can encourage violence and create an environment where individuals feel comfortable engaging in behaviors they wouldn't dare to in their daily lives, thus potentially predisposing people to violence in real life. Furthermore, these games can lead to a decrease in positive social behaviors, desensitization to negative and violent events in real life, and difficulty concentrating. One of the common descriptions that comes to mind for individuals who have negative effects of digital games is the concept of addiction (Yalçın et al., 2016).

2.1.4. Digital Game Addiction

Addiction can be defined as being dependent on a specific substance, object, or activity, known as the state of dependency. In other words, addiction can be defined as a disease characterized by dysfunction in circuits related to reward, motivation, and memory in the brain, leading to biological, social, and psychological harm, and causing individuals to engage in addictive behaviors pathologically for the purpose of reward or relief (Ayhan & Köselören, 2019).

When we talk about digital game addiction, we refer to the repetitive behavior of playing games either online or offline. Common characteristics of individuals with digital game addiction include the inability to control the time spent gaming, loss of interest in other activities, continuing to play despite negative consequences, and feeling psychological withdrawal when unable to play (Paulus et al., 2018). While there are various terms such as internet addiction, pathological screen use, computer addiction, and cyber relationship addiction, we will focus on the concept of 'digital game addiction' in this thesis. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), includes behavioral addictions under the headings of 'gambling disorder', and 'substance-related and addictive disorders'. Although digital game addiction is not yet included among the

diagnoses in DSM-5, the third edition of the manual recommends advanced research, and 'Internet Gaming Disorder (IGD)' is one of the candidates in this context (Pontes & Griffiths, 2015).

These diagnostic criteria bear a strong resemblance to the diagnostic criteria for 'gambling disorder'. Among these diagnostic criteria are excessive preoccupation with internet games, feeling withdrawal symptoms when unable to play, inability to stop playing despite negative consequences, lying about the amount of time spent gaming, and experiencing multiple criteria such as loss of relationships, jobs, education, and career opportunities due to gaming behavior. If at least five of these criteria are present within a 12-month period and there is a decline in the individual's functionality, a diagnosis of dependency can be made (APA, 2013). In this context, although digital game addiction may not be listed under mental illnesses, the increasing number of clinic visits due to accompanying problems, the growing support and search for solutions from families, and the increasing interest of researchers in the subject have made it important to study this type of addiction in our era, and the literature on the subject is gradually increasing.

The fact that games can be played on almost all technological devices has led to the prevalence of gaming addiction in societies. Many digital games have begun to affect societies economically, socially, and culturally, and as the infinite possibilities offered by games increase, digital games have become an indispensable source of entertainment for individuals. With many people's fantasies of actions, they cannot perform or confront in real life being realized in the world of digital games, they have become an essential source of entertainment for individuals (Karaduman & Acıyan, 2020).

As individuals spend more time playing games, they may begin to experience feelings of tension and stress rather than enjoyment, indicating the onset of gaming addiction. Digital game addiction affects individuals socially, physically, and psychologically, and as dependence on games increases, it can lead to decreases in individuals' participation in social activities and interactions. Consequently, individuals may face criticism from their social circles and may ultimately be excluded. Some research suggests that the link between digital games and loneliness, depression, and aggression lies in individuals seeing games as a means to escape from their problems and in the serious relationship between aggression and gaming addiction (Çakır et al., 2011).

When considering theories about digital game addiction, behaviorist theory suggests that gaming addiction is influenced by external stimuli and rewards. Personality theory proposes that there is no relationship between personality traits and addiction. The humanistic approach suggests that addiction reinforces physical needs such as love, belonging, and acceptance. Social construction theory suggests that addiction and gaming practices are correlated. Cognitive theory suggests that individuals become integrated with the game, ignoring external stimuli and their surroundings. Finally, self-determination theory posits that gaming activates feelings of adequacy and autonomy in individuals (Yumrukuz, 2021).

According to many theories, addiction has been explained in various ways, but the fact that each individual may become addicted in different ways and for different reasons leads to different outcomes. The emotions experienced by players while playing digital games lead to the development of addiction and spending long hours in front of screens. There are components within these games that motivate players and strengthen their addictions, which can be explained in three separate groups. The first component is the achievement component, which can be described as progression within the game, with levels, stages, and competition, offering a higher chance of advancement than in real life. The second component, the social component, involves the likelihood of socializing with other players during the game, as well as the ease of cooperation, initiating and maintaining relationships, compared to real-life situations. The third and final component is immersion in the game, which includes an interest in uncertainties and rapidly changing stimuli within the game, becoming immersed in the unique world of the game, adopting characters, and disregarding real-life responsibilities. In order to prevent digital game addiction and enhance the positive contributions of digital games, it is necessary to first examine the factors that cause digital game addiction (Karaduman & Acıyan, 2020).

2.1.5. Causes of Digital Game Addiction

When the causes of digital game addiction are investigated, it is observed that individuals engage in wrong and unconscious use of technology. Individuals have discovered that the easiest way to access information while researching is through technology, leading to the suggestion that the primary reason for young people becoming addicted to spending time in front of screens is their reliance on technology. As technology is increasingly referred to as 'Basic Needs,' addiction has escalated and become normalized. Individuals who lack a

social life apart from spending time in digital environments begin to feel lonely and antisocial as they distance themselves from digital sources. Unable to make friends in their social lives, individuals try to compensate for this deficiency by seeking companionship in 'digital game friends' (Yengin, 2019).

The indifferent and inconsistent attitudes of parents also contribute to game addiction in terms of familial factors. The socio-economic structure of the family and its cultural environment can also influence a child's inclination towards digital games. When parents fail to spend time with their children, offer technological devices as 'rewards' to create personal space, or use them as a means of calming down, it can lead to them becoming addicted to digital games (Wang,2022)

Another reason individuals become addicted to games is the sense of 'self-esteem' they can create in the virtual world. Within the game, a person can replace the diminishing self-esteem experienced in real life. They can distance themselves from feelings of inadequacy and failure in real life and create an entirely new identity. Alternatively, young people may turn to digital games to cope with the boredom of the slow flow of life. The vibrant and fast-paced content of games eliminates monotony, preventing them from getting bored. Based on the feedback received, game designers prepare themes that are attractive and arouse curiosity (Kim et al.,2008).

Studies show that the virtual world diverges from real-life time and space perception. With advancing technology, virtual environments are becoming more captivating for individuals. As a result, traditional games are gradually being replaced by virtual games with different content, leading to an increase in generations of game addicts (Irmak & Erdoğan, 2015).

2.1.6. Studies Related to Digital Game Addiction

Research on digital addiction began in 1980, and the concept of digital addiction started to be systematically understood in 1989. Studies on digital game addiction in many countries such as China, the USA, Turkey, Japan, etc., demonstrate the negative impacts of gaming behavior worldwide (Griffiths & Hunt, 1995).

In a study conducted by Orak et al. (2021), a study was conducted to determine the levels of digital game addiction among 517 university students. The study found that male

students have a higher risk of being game addicts compared to female students, with 58% of students using mobile platforms to play games and preferring First-Person Shooter (FPS) games the most while gaming (Orak et al., 2021).

In a study conducted by Arslan (2020), examined 1108 students studying at Sivas Cumhuriyet University to investigate university students' levels of digital game addiction across various variables. The results of the study revealed that male students had higher levels of game addiction compared to female students, and first-year students had higher levels of meeting addiction criteria compared to fourth-year students.

In a study conducted by Arslan and Bardakçı (2020) to examine the impact of university students' levels of digital game addiction on their communication skills, significant differences were observed in terms of digital addiction and communication skills among students based on gender, grade level, place of residence, and type of high school they graduated from. The analysis revealed that some subfactors of digital addiction were found to have an impact on individuals' cognitive and behavioral communication skills.

In a study conducted by Bülbül et al. (2018), the researchers investigated the relationship between 446 university students' digital gaming behavior patterns and personal characteristics as well as academic performance. In the comparisons made, although no differences were found in terms of addiction levels concerning weight problems, significant differences were found in addiction levels based on factors such as meeting people in the digital environment, age of first phone ownership, and the number of weekly activities. Regarding the academic performance variable, it was observed that as a person's addiction level increased, there were decreases in study time and academic performance.

In a study conducted by Çavuş and colleagues (2016), the researchers examined whether university students' levels of digital addiction varied according to the most frequently played type of game. It was found that students who played games such as sports, strategy, adventure, and action were in a more dangerous group in terms of having game addiction, whereas those who played question-answer games, educational, and simulation games had lower levels of digital addiction.

In a study conducted by Wang and Zhu (2013) found that to understand game addiction among Swedish and Chinese undergraduate students and to see how digital games affected individuals' lives. The results of four interviews concluded that Swedish and

Chinese students experienced problems in their health and education due to digital games, as well as difficulties in some of their friendships (Wang & Zhu, 2013).

In a study conducted by Chio et al (2004), examined the relationship between individuals with digital game addiction and their academic achievements, hostility, and demographic variables, and they found a significant relationship among the mentioned variables. It was found that individuals with higher levels of addiction tend to feel more hostility towards others compared to non-addicted individuals.



2.2. Attachment Styles

2.2.1. Definition of Attachment Theory

The foundations of Attachment Theory were laid by John Bowlby based on experimental research conducted at the London Child Guidance Clinic. In a study, he observed that male children separated from their mothers at an early age showed increased rates of delinquency later in life. Thus, Bowlby, the pioneer of Attachment Theory, emphasized the importance of emotional bonds characterized by trust, support, and comfort. In later stages of research, he noted similar issues in children who initially lived with their families but experienced prolonged separations (Tüzün & Sayar, 2006). Seeking a better understanding of these problems, Bowlby suggested that the fundamental factor lies in 'children lacking the opportunity for healthy attachment to a mother figure in their early years, preventing them from forming successful emotional connections. These studies have emphasized the significance of the emotional bond in the mother-infant relationship and have assisted us in understanding the importance of attachment styles in personality development. Bowlby, who advocates for warmth and closeness in the development of both the child and the mother, warns that if this bond is not as it should be, the child may face challenging problems later on (Cömert & Ögel, 2014).

Etiology and object relations have played a crucial role in the development of attachment theory. The attachment theory, developed as an alternative to object relations theory, aims to investigate why separation leads to anxiety and explores similarities in mourning reactions between adulthood and childhood. It argues that real and painful life events, such as separation, can have pathological reflections on a child's personality development. In this context, it aligns with Freud in acknowledging that anxiety arises from the threat of losing the love object and proposes the existence of defense mechanisms to cope with it. However, Bowlby asserts that the attachment system is a universal structure with a biological function for an individual's survival. Unlike Freud, he suggests that separation anxiety is not a neurotic response to an unknown danger but a reaction by the child to sustain life in the absence of a caregiver. Lorenz's research on ducks and other birds, revealing that maternal feeding is not a prerequisite for the formation of social bonds, supports Bowlby's hypothesis that the bond between a baby and its mother involves more than meeting basic needs (Ainsworth, 1989). Bowlby, defining attachment as a strong bond between two individuals, explains the reasons individuals form emotional bonds with those they value

(Oskay, 2018). The ability to form emotional bonds is a developmental motivation crucial for a newborn's continued existence. A child achieving a healthy attachment can protect themselves from dangers and cope with encountered problems. A child is successful in establishing closeness with the mother and perceives the surrounding environment as a secure foundation to make sense of and a refuge for protection from hazards (Sümer & Güngör, 1999).

Attachment is an emotional and physical bond with the primary desire to establish closeness between the caregiver and the child, characterized by internal consistency and continuity. This phenomenon is not exclusive to children and persists throughout life, with the expression evolving over time based on lived experiences. Additionally, the structure of early attachment to the primary caregiver can influence one's attachment patterns with others in later stages of life. Research indicates that attachment patterns continue not only in infancy but also through childhood, adolescence, and adulthood, exhibiting different characteristics at each stage (Kesebir et al., 2011).

John Bowlby described the stages of attachment as longing for the existing relationship between the infant and caregiver, protesting separation, desiring exploration, and viewing the caregiver as a secure base for protection (Morsünbül & Çok, 2011). If a baby experiences the attachment process without achieving closeness, they develop responses to separation, as examined by Bowlby under three main categories. The first is '*protest of separation*,' where the baby actively cries and resists others trying to console them when separated from the caregiver. The baby aims to bring back the caregiver by crying loudly and showing resistance. The second is '*despair*,' a passive state after separation characterized by a lower tone of crying, silence, and introverted reactions reflecting pain and sadness. The third response, termed '*detachment*,' involves the baby withdrawing interest from the caregiver, creating distance, and engaging in other activities. Even if the mother returns at this stage, the child's anger and anxiety persist, representing a defense mechanism against the possibility of losing the mother again (Şenormancı et al., 2014). Even after the mother returns, the child may continue to display inconsistent reactions and show signs of anxiety. Additionally, various factors such as the intensity and form of the child's responses, the duration of the caregiver's absence, and the availability of support resources for the child can influence the level of this anxiety (Ainsworth, 1989).

2.2.2. Development of Attachment

Bowlby states that the primary goal of attachment is to maintain and sustain closeness with an attachment figure. It has been observed that not only humans but also other animals strive to maintain this closeness. For instance, Harlow (1958) defined a wooden and plush-covered object as the caregiver for monkeys. He observed that the monkeys attempted to approach their caregivers even when faced with a threatening stimulus. Bowlby explained the attachment behavior observed in all living beings according to developmental stages throughout life;

After infants are born, they require a caregiver to survive, depending on their individual maturity levels. To express this need, they exhibit certain instinctual responses (Hazan & Shaver, 1994). Babies are born with certain behavioral systems, such as crying, sucking, and clinging, which form the building blocks of attachment. From early on, babies tend to respond to human stimuli, such as a human voice as an auditory stimulus and a human face as a visual stimulus, starting from their birth. Bowlby suggests that attachment behavior consists of four developmental stages (Bowlby, 1969).

In the first stage, the baby orients towards stimuli but requires olfactory or auditory stimuli to distinguish figures. From birth to about the 8-12th week, the baby shows behaviors like smiling, grasping, eye tracking, and focusing on caregivers. The baby can notice what is happening around them, enjoys contact, and can take socialization steps. It has been observed that babies can stop crying when they hear a sound or see a face during this period known as pre-attachment. Babies learn to differentiate between people and objects. In the second stage, the baby can turn to multiple figures, distinguishing between familiar and unfamiliar faces between 3-6 months (Ainsworth, 1989). They develop different responses towards primary caregivers and express anger during separations. In the third stage, the baby knows the caregiver will return, sees the mother as a secure base, and starts exploring more. They also begin to distinguish behaviors towards strangers. In the final stage, the baby can predict the mother's reactions and observe her actions in detail, marking the beginning of a mutual relationship. It is argued that for a healthy attachment process, there must be a satisfying, pleasurable, and productive bond between the mother and the baby (Bowlby, 1969).

When considering all of these, the baby begins to perceive the mother as an independent object after the third stage. The baby does not have a clear idea about what influences the mother's behaviors, the reasons behind the mother's approach or avoidance tendencies, or what the baby needs to do to change these behaviors until the third stage. However, this situation changes after the third stage. The baby begins to understand the mother's goals and shapes their own behaviors to achieve these goals. This way, the simple mother-baby relationship starts to become more complex. Although there is no clear view on when the baby attaches to the mother, this situation may vary according to the internalized definition of attachment (Holaçsu et al.,1993). The need for emotional attachment is evolutionary and functional. This situation between the baby and the mother helps the baby protect themselves and is necessary for them to protect themselves from potential environmental dangers in the future (Sümer & Güngör, 1999). The need for closeness is generally observed when the baby experiences a frightening situation or encounters a situation that threatens their safety, and they see the mother as a safe harbor. When they feel safe, the baby can engage in behaviors such as play or enjoyment (Hazan & Shaver, 1994).

According to Crain, it is suggested that the unmet need for secure attachment in children stems from their parents' inability to experience secure attachment with their own parents. As a result, it is believed that early attachment patterns in parent-child relationships are internalized, forming the basis for how individuals establish and maintain relationships with others (Collins & Read, 1990). All these ideas form the foundation of mental processes termed as '*internal working models*' by Bowlby (Bowlby, 1988).

2.2.3 Internal Working Modals

Bowlby, who also delved into the relationship between mother and baby, asserted that this connection plays a crucial role in the child's self-perception and perception of others, giving rise to the concept of 'internal working models.' The daily experiences and closeness shared between the child and the mother contribute to the formation of internal representations of the mother in the child's mind. The reactions, closeness, and behaviors displayed by the mother towards the child are labeled by the child as mental representations related to building a close relationship. Bowlby defined mental representations in attachment theory as 'internal working models' and examined them in two dimensions (Morsünbül & Çok, 2011). The quality of the relationship between the baby and the caregiver, and the nature of these internal working models, have been argued to be significantly influenced by

the mother's natural readiness and ability to perceive and respond appropriately to the needs of the baby. One dimension of internal working models can be considered as the child's interpretation of their own sense of worth in relation to the person to whom they will form an attachment. Exactly, children who have a loving, consistent caregiver capable of analyzing their needs develop a self-model where they feel worthy of love. Conversely, children whose need for security is not met may develop a self-model where they perceive themselves as unworthy, leading to the development of a model where others are also perceived as untrustworthy. In this case, it defines the second dimension of internal working models. In this context, the quality of attachment between the caregiver and the baby shapes the child's internal working models, playing a crucial role in influencing the child's life and relationships with others.

Internal working models enable children to analyze their own and others' behaviors, shaping their expectations and beliefs in the process (Oskay, 2018). According to Bowlby, the transformation of relationships formed in the early years of life into mental models occurs towards the end of the child's first year. The reason for this is the meaningful development of the concept of object permanence as the child approaches the end of their first year (Piaget, 1954).

The analysis and fulfillment of the child's needs by the mother, along with the conveyed attitudes, lay the foundation for the infant's emotions, thoughts, and behaviors. Internal working models that occur based on early attachment experiences determine an individual's expectations, including self-esteem, from oneself and others (Subaşı & Kazan, 2020). It is mentioned that children who are not loved and their needs are not met by the caregiver in the early stages develop a perception that they will not be loved and wanted by anyone they relate to in the world. Thus, we can consider the most significant aspect of internal working models as an individual's ability to predict the attitudes of others in both childhood and adulthood and plan their behavior based on these predictions. An individual decides how to behave in each new situation without the need to reevaluate the event, which is the most functional part of the attachment system (Bowlby, 1969). Many researchers have conducted experiments on attachment systems, and one of them is Mary Ainsworth.

2.2.4. Mary Ainsworth's Contributions and the Strange Situation Experiment

Mary Ainsworth and her colleagues examined mother-infant relationships in a laboratory setting, emphasizing personal differences, and introduced a standardized observation technique for the concept of attachment for the first time. While systematically addressing the main theories of attachment, Ainsworth emphasized that at the core of attachment lies an emotional bond. Furthermore, she described attachment as the process of establishing closeness based on the infant's relationship with and affection for their mother. Like Bowlby, she emphasized the importance of a warm, intimate, and continuous connection between the mother and the baby (Ainsworth et al., 1978).

The experiment, named the 'Strange Situation,' consists of eight episodes, each lasting 20 minutes. Infants aged 12-18 months play with an unfamiliar person while the mother briefly leaves the room and then returns to the same environment. In this experiment, the infants' seeking of closeness and contact, their search for acceptance during contact, their relaxation during that moment, and the impact of the mother's actions on the infant's exploratory behaviors were examined. In addition to this, the activated attachment systems of infants in this cycle were studied, leading to the identification of three primary attachment styles (Ainsworth, 1989).

2.2.5. Definition of Attachment Styles

Attachment styles can be defined as the process by which an individual, striving to maintain a sense of security in interpersonal relationships, perceives the safety of reactions exhibited by a significant other in their social life and interprets their worthiness of being loved, based on whether their mental models are positive or negative. The communication established with the primary caregiver in early childhood plays a decisive role in shaping patterns of emotions, thoughts, and behaviors in later life. Consequently, perceptions that vary from person to person may differ based on the individual's attachment style (Bowlby, 1988). In this study, the researcher will conduct the investigation through a three-dimensional attachment style (Secure, avoidant, and anxious/ ambivalent attachment style) framework.

Secure Attachment Style: Children who have a secure attachment style are known to cry less when separated from their mothers, maintain their desire to search for their mothers eagerly and happily, and experience a normal level of tension during the time they are apart

(Tüzün & Sayar, 2006). These children, who react to the departure of the parent, replace protest with relaxation and exploratory behavior. At the same time, these children are more interested in exploring their surroundings and more compliant with attachment behavior (Bowlby, 1969). When children are raised with an uninterrupted, responsive, consistent, always accessible, and loving mother, they feel the freedom to explore their surroundings comfortably. They also need the support of the caregiver to preserve their sense of security when they feel endangered (Sümer & Güngör, 1999).

Avoidant Attachment Style: A child with an avoidant attachment style may appear restless and frequently cry, even when their mothers are present. The caregiver is not within their comfort zone, and their desire to explore the surroundings is diminished. When they experience a negative situation or feel threatened, they do not reach out to their mothers; instead, they attempt to handle the situation on their own. In contrast to securely attached children who are willing to seek their mothers when separated, aversively attached children remain calm and unresponsive during separation. Additionally, when reunited with their mothers, they may display rejecting and distancing behavior, continuing to focus on their activities as if their mothers' presence does not affect them (Tüzün & Sayar, 2006)

It has been observed that the mothers of avoidantly attached children are often perceived as cold, inadequate in understanding the child's needs, and neglectful. These mothers typically exhibit avoidant behaviors and tend to display rejecting attitudes towards contact. Children raised by such a parent often have past experiences where their need for safety and protection was frequently unmet. There is an observed suppression of the need for the mother to avoid disappointment and disillusionment. It is believed that the mothers of these children have unresolved traumatic experiences and losses from the past, and their attachment processes may also share similar qualities (Ainsworth, 1989).

Anxious /Ambivalent Attachment Style: Children with an anxious/ambivalent attachment style feel high levels of anxiety, tension, and anger when their mothers leave them. They exhibit clinging behavior and have difficulty separating from their mothers. They reject communication with strangers and feel restless, displaying uneasy reactions to attempts to calm them. When the mother returns to the child, it has been observed that the child cannot quickly calm down and, in an attempt to prevent their mothers from leaving again, they cling to them. Children of this style often have doubts about their mothers'

accessibility. Therefore, they experience inconsistency in seeking comfort (Sümer & Güngör, 1999).

2.2.6. Attachment in Different Life Stages

According to the founder of attachment theory, John Bowlby, attachment is important in every stage of an individual's life from birth to death. It is believed that one of the key principles of attachment, the relationship between mother and baby, shapes the person's future relationships (Bretherton, 1992). Attachment begins to take shape in the early years of life, yet it forms the foundation of human relationships throughout the life cycle with positive or negative outcomes. Before adolescence, children develop strategies to protect themselves from dangers, while in later years, they develop strategies to protect their self-identity (Lapsey et al., 2000).

Attachment in Childhood: Looking at the lifelong changes of an individual, the importance of developmental differences in attachment relationships has become evident. In this context, Waters and their colleagues, who examined whether attachment styles formed in the early years of life remain similar in later years, analyzed babies using the strange situation method at 12 months and, 20 years later, studied their attachment patterns again. They observed that almost 72% had the same attachment style. They explained the changes in attachment styles over time in the remaining percentage as experiences of negative life conditions such as parental loss, divorce, serious illness, and sexual abuse (Waters et al., 2000).

Even though we say that the attachment styles of the majority do not change in the absence of a negative event, the nature of relationships with caregivers inherently evolves over time due to communication. When the child is 3-4 years old, their cognitive abilities develop, and they can establish cause-and-effect relationships. Thus, they can anticipate the parent's plans in advance and strive to align their own goals on a common ground. When language develops to aid self-expression, healthier communication emerges. As the child grows and experiences separation from the mother more frequently, they become better able to tolerate it. With the development of motor skills on top of all these abilities, the child can venture further away from the mother to explore and increase interactions with third parties (Ainsworth, 1993).

As children grow older, their expectations transform. For instance, while at a young age, they may need physical contact with their mother to soothe their anger, as they age, they can also calm themselves through the sound of their mother's voice or her words (McKay, 2000). Especially in the early childhood years, when the child can interpret speech, the mother's behaviors determine the quality of the attachment relationship, and the mother's statements become meaningful. The contribution of cognitive processes to creating a connection is as significant as its potential to initiate conflicts between the child and the mother. Additionally, throughout childhood, not only the mother but also other household members can be defined as providers of security (Bodur et al., 2005).

Attachment in Adolescence: Individuals reaching adolescence begin to mature not only through hormonal and physical changes but also by transitioning into Piaget's stage of formal operational thinking, achieving cognitive maturity. Consequently, they start making deeper and more logical deductions about life and relationships (Brezelton & Greenspan, 2000). With the changes occurring in both the adolescent body and mind, differences begin to emerge in the functioning of attachment patterns. For example, while it is a need for a child to find their parent at home when returning from school, an adolescent may not feel the same need for their parent to be at home and may not be anxious if they are not. Additionally, the adolescent realizes that the trust provided by the parent may be limited, and the meanings attributed to the parent could be restricted (Einsberg & Mussen, 1978).

The notion that parents are mature and experienced, which is much stronger in childhood, transforms into an inclination for the adolescent to reject the parent's authority and wisdom. Physically strengthening and growing also increase self-sufficiency and confidence, leading the adolescent to disconnect from the parent and become isolated. Over time, they begin to seek trust themes in their relationships with peers and friends of different genders, and they start searching for attachment they severed with their parent in these new relationships (Shaffer, 1999). This newly formed attachment relationship is different from the one with the parent. While children establish an asexual and dependent relationship with their parents, the relationships they form with their peers are mutual and sexual. The lifelong attachment relationship between mother and child also forms the foundation of adolescent relationships (Siegel & Hartzell, 2004).

Besides the presence of this independence observed during adolescence, it has been noted that the transition from high school to university brings about a significant impact on

an individual's life due to the separation experienced. Research has shown that especially first-year university students, transitioning from high school to college, tend to maintain the attachment style they had with their parents. The past attachment relationships established by these students play a significant role in their new relationships (McTaggart, 2011).

In a study proving that parent-child relationships and parenting styles during adolescence impact an individual's attachment behavior, it was observed that mothers' avoidance levels were associated with the acceptance and involvement dimension of parenting, and their anxiety levels were linked to strict control, forming avoidant attachment in adolescents (Barone, 1991). Additionally, it has been observed that excessive control by the father increases anxiety and avoidance behavior in adolescents. Finally, securely attached adolescents have been found to exhibit higher levels of academic achievement, positive behaviors, self-esteem, and psychological well-being compared to insecurely attached individuals (Keskin & Çam, 2009).

Attachment in Adulthood: In adulthood, individuals demonstrate the presence of attachment through behaviors that provide them with both physical and psychological security, enabling them to establish and maintain communication and intimacy. Of course, when we look at the attachment styles in childhood and adulthood, it is normal to observe similarities and differences. Adults prefer to be with their partners when they encounter stressful situations, similar to infants seeking their mothers for comfort and security, in order to provide reassurance and find calmness. Adults' expectations from others vary based on the attachment style they experienced in the past. One difference between adult attachment styles and children's attachment styles is that, while attachment in childhood is one-sided, attachment in adulthood occurs mutually. During infancy, a baby seeks care and love from the mother, while in adulthood, spouses show mutual interest and affection to each other. Internal working models continue to be regulated in adulthood just as they are in infancy (Hamarta, 2002).

As individuals age, they accumulate more experiences and change certain aspects. Although the nature of interpersonal experiences can influence a person's attachment patterns, there is evidence suggesting that adults' internal working models do not change. To support this situation, if necessary; individuals, due to their information processing capacity, perceive external stimuli in a way that supports existing attachment styles (Yang & Zhou, 2008). Additionally, they shape their social environment in line with their self and others'

models. In other words, they tend to choose a social environment that is more compatible with themselves. Although we may discuss the immutability of these models, Bowlby proposed that the life dynamics of an individual can positively or negatively alter their internal working models (Goldberg, 2004).

One of the research studies conducted to measure adult attachment behaviors is the Adult Attachment Interview, which is based on Mary Ainsworth's classification developed through observing children in a strange situation. Researchers Main and Goldwyn first ask subjects about their childhood memories and any memorable moments from that time. Then, they request the subjects to describe their experiences with their parents during childhood using adjectives. Subsequently, traumatic memories and the reactions of parents are questioned. All these questions test and categorize the subject's suitability for the attachment category. The research findings indicate that adults who negatively characterize their childhood with their parents also exhibit an insecure attachment style in adulthood, and they are observed to be influenced by the same attachment style when raising children. On the contrary, some adults who recall negative childhood experiences and report rejecting attitudes from their parents are observed to transition to a secure attachment style in adulthood and are able to raise their children in accordance with this style (Rothbard & Shaver, 1994).

In addition to the mentioned classification, another study conducted by Hazan and Shaver (1987) contributed to defining romantic love as an attachment process and categorizing adult attachment behaviors. Forming closeness, connecting with others, feeling comfortable, peaceful, and secure within a romantic relationship is easier for securely attached individuals, and their fears of abandonment are lower. Research indicates that securely attached individuals experience happiness, friendship, and trust in their romantic relationships, and they accept and continue despite disagreements (Collins & Read, 1990). Anxious-ambivalent individuals are observed to avoid entering into relationships with others because they perceive themselves as unworthy, doubt the love they receive, and harbor feelings of jealousy. They have a lot of negative perceptions about themselves, making them dependent individuals. Avoidant individuals, on the other hand, refrain from forming close relationships because trusting others is very difficult for them. They have a low tolerance for rejection and high levels of anxiety (Hazan & Shaver, 1987). According to the research results, the insecurely attached group reported more negative experiences related to love

compared to securely attached individuals and indicated that their past romantic relationships were shorter in duration. Furthermore, parents in the insecure group shared more ambiguous and insecure information about their relationship experiences during childhood. The common point of both studies is that they built upon the self-model and others-model suggested by Bowlby but rather examined the categorical structure formed by the combination of these two dimensions. Based on this formation of multiple categories, a measurement tool has been developed by taking the internal working self-model and others-model as a basis (Bartholomew & Horowitz, 1991).

Building on this model, individuals in the First (Secure) group perceive themselves as valuable and also accept others, acknowledging their trustworthiness. Individuals in the Second (Preoccupied) group, on the other hand, view themselves as unworthy while seeing others positively. Those in the Third (Fearful) group see both themselves and others negatively, perceiving them as untrustworthy. Finally, individuals in the Fourth (Dismissive) group describe themselves positively but characterize others as negative and untrustworthy (Sümer, 2006). The classifications mentioned above are presented to provide information. The "Three-Dimensional Attachment Styles Scale," developed by Evren Erzen, which is based on the research by Hazan and Shaver mentioned above, was used in this thesis to measure the attachment styles of individuals across multiple age groups.

Adult attachment patterns have been investigated in various ways, and the common goal in all of them is to understand the relationship between the attachment styles formed in the past and the attachment styles established in adulthood, as well as to identify relationships among various variables (Sümer & Güngör, 1999). In summary, as previously mentioned, adults engage in mutual relationships with each other, maintaining attachment relationships that resemble those formed in childhood. These similarities include establishing physical and emotional closeness with a partner, trusting in the partner's continuity, seeking support from the partner in the face of physical or emotional threats, and experiencing anxiety and concern during separations from the partner. Just like in childhood, it has been observed that the anxiety and concern felt during even brief separations between partners persist into adulthood. In conclusion, attachment theory sheds light on interpersonal relationships that develop from the first day of a baby's life to the final moments of adulthood (Subaşı & Kazan, 2020).

2.2.7. The Impact of Culture on Attachment

Bowlby emphasizes the need to consider not only the biological relationship between the mother and the baby but also the internalization of the mother's own family relationships, cultural values, and experiences. Many researchers supporting Bowlby's view argue that cultural characteristics impact attachment (Bowlby, 1988). According to Hinde and Stevenson-Hinde's detailed investigation of culture is necessary in various aspects, such as parenting attitudes, how children are desired to be raised, and the quality of care to be provided to the child. While many positive skills such as positive mood, social skills, and empathy are thought to be associated with secure attachment, it has been observed that the concept of positive traits varies according to culture (Hinde & Stevenson-Hinde, 1993). When attachment studies are conducted, a detailed examination of the culture of that nation is necessary.

According to another study, the cultural systems of that country shed significant light on attachment in understanding emotional experiences. To explain this, while the concepts of 'self-esteem' and 'distrust' are prominent for American citizens, the concepts of 'Respect' and 'Shame' take precedence for Puerto Ricans. In this regard, a child engaging in social interactions during play will carry different meanings in each culture (Harwood et al., 1995). When a child touches and explores things while playing, it may be perceived positively in one culture as exploration and curiosity, while in another culture, it may be negatively perceived as misbehavior and recklessness. It is also possible to evaluate attachment from a gender perspective. In some societies, male children may be raised to be more assertive compared to female children (Otto & Keller, 2014).

In a study conducted on Chinese individuals, it was found that Chinese babies exhibit a much more resilient attachment pattern compared to other cultures, likely due to the constant presence and non-separation from their mothers. In Japanese culture, the concept of a 'secure base' is believed to originate from Western thinking and is argued not to be particularly applicable in Eastern cultures. It has been emphasized that different cultures do not perceive the concept of a secure base in the same way and it cannot be generalized for all cultures. Therefore, it is highlighted that each culture needs to adapt the concept according to its own differences, as universal assessments cannot be made (Rothbaum et al., 2000).

Another study conducted with American and Turkish women revealed that Turkish women are more afraid of abandonment. Based on this result, it emerged that in Turkish culture, secure attachment is influenced by being adaptive and affected by emotional closeness in intimate relationships. Building close relationships and the fear of losing them are considered as components of an adaptive interpersonal style in Turkish culture (Rapoza & Yalçinkaya, 1998).

If we consider Turkish culture, it is essential to focus on the process starting from birth in the hospital. Factors such as the necessity of increasing baby-friendly hospitals in Turkey, the time it takes for the baby to be placed in the mother's arms after birth, the presence of large families leading to limited one-on-one time for parents and the baby, guidance from grandparents in child care, sleep training, responses to the baby's crying, toilet training, the process of weaning from breastfeeding, and the burden on the mother should also be taken into account (Tongar, 2019).

2.2.8. Studies Related to Attachment Styles

In a study conducted by Koser and Barut in 2020, they examined the relationship between university students' communication skills, problem-solving skills, and attachment styles. They found a negative relationship between fearful and dismissive attachment styles and communication skills. Additionally, a positive relationship was found between secure attachment and dismissive attachment styles with problem-solving skills. Koser and Barut speculated that individuals with a dismissive attachment may prioritize autonomy, which could lead them to develop new solutions when faced with any problem (Koser & Barut, 2020).

In a study conducted in 2020 by Smith and South using meta-analysis, a strong relationship was found between individuals with insecure attachment and borderline personality disorder. Additionally, it was found that individuals with anxious attachment had an effect size of .48, and those with avoidant attachment had an effect size of .30, suggesting a potential association with borderline personality disorder (Smith & South, 2020).

In a study conducted by Lui and Ma in 2019, they examined the relationship between attachment styles, emotion regulation and social media addiction to determine if there was a connection. It was found that individuals experiencing attachment anxiety were more likely to have social media addiction. This indicates a positive relationship, and emotion regulation

played a mediating role in this relationship. The researchers Lui and Ma believe that working on individuals' emotion regulation skills will be preventive against social media addiction (Lui & Ma, 2019)

In a study conducted by Demir in 2017, the relationship between university students' attachment styles and feelings of anxiety and inadequacy was examined. It was found that as individuals' secure attachment scores increased, their levels of anxiety decreased. Additionally, it was determined that as university students' scores for obsessive attachment increased, their levels of anxiety also increased (Demir, 2017).

In a study conducted with 1026 university students, the relationships between students' anxiety symptoms, attachment styles, emotion regulation, and intolerance of uncertainty were examined, with a focus on the relationship between attachment and anxiety. The research found that an increase in insecure attachment predicted an increase in anxiety levels. Accordingly, the researcher found a significant and inverse relationship between anxiety and secure attachment, while a significant and positive relationship was found between anxiety and insecure attachment (Yüksel, 2014).

In a study conducted by Türe in 2013 to examine the relationship between social anxiety, parental perception, attachment styles, and demographic variables, it was investigated whether demographic variables influenced these variables. Significant differences were found in the social avoidance and social fear scores of 398 university students regarding variables such as place of residence, living arrangement, number of friends, and parental environment in which they were raised. Negative relationships were observed between students' social fear and avoidance scores and their parents' attachment scores. Secure attachment style was negatively correlated with social avoidance and social fear while dismissing, preoccupied, and fearful attachment styles were positively correlated with them (Türe, 2013).

In a study conducted in 2013, Aslangiray examined the relationship between university students' attachment styles and perceptions of body image in relation to societal gender roles. The study included 427 students, and it was found that there is a negative relationship between traditional gender roles and body images, while there is a positive relationship between egalitarian gender roles and perceived body images. In addition to these findings, the researcher examined whether gender and parental education levels affect body

perceptions and found that only an increase in mothers' education levels leads to an increase in university students' body image scores (Aslangiray, 2013).



2.3. Emotion Regulation Levels

2.3.1. Definition of Emotion

The Turkish Language Association defines emotion as the perception through the senses, feelings, and intuitions awakened in the inner world of individuals by certain objects, events, or individuals they encounter, and evaluating events, objects, or situations from moral and aesthetic perspectives (TDK, 2024). On the other hand, the Oxford English Dictionary defines emotion as any feeling, mind, passion, agitation, or movement, stating that it is a state of mental arousal in humans (OED, 2024). American psychologist Daniel Goleman, on the other hand, describes emotion as psychological and biological states in individuals and as movements specific to feelings or emotions (Goleman, 1995). When examining these three definitions, it can be said that emotions are impulses that prompt individuals to act in physical, cognitive, and neuropsychological dimensions, assisting them in understanding what they feel in their inner worlds and regulating their lives based on these internal movements. However, research on the brain and body suggests that each emotion prepares the body for different reactions (Atalar & Atalar, 2018).

Since the time of Socrates, various views have been proposed regarding the functions and activities of emotions. Darwin's biological perspective, Freud's psychoanalysis, and more recent cognitive theories have shaped our thoughts and relationships about emotions (Dixon, 2009). In addition to these ideas, Arnold's appraisal theory has helped us to look at the concept of emotion from different perspectives. Arnold focused on the connection between emotion and appraisal, suggesting that emotions are products of individuals' cognitive processes (Shargel, 2017).

Individuals believe that emotions serve two functions: guiding and evaluating, in order to take action, meet their needs, and provide the necessary energy. It is believed that if individuals can perceive and meet their needs, positive emotions arise, whereas if they cannot, negative emotions emerge. Thus, individuals can direct their lives to experience certain emotions and to create distance from related emotions (Karaçay, 2019). This also means that individuals can be directed to increase or decrease the intensity of the emotion they want to feel, as well as to sustain the emotion (Werner & Gross, 2010). The possibility of negative outcomes of emotions for oneself or others, the presence of painful experiences, the effort to conform to societal norms and social expectations, and the desire to protect

oneself or others have compelled individuals to regulate their own emotions. In other words, the desire to avoid pain and experience positive emotions has shaped people's perspectives on emotion regulation (Özteke-Kozan et al., 2017). As a result, the concept of emotion regulation, which has recently entered the literature, has become a subject of investigation for many researchers.

2.3.2. Emotion Regulation

It has been noticed that skills in perceiving, labeling, accepting, and regulating emotions impact a wide range of areas from psychological well-being to education, work life, and physical health, leading to an increase in research on emotion regulation over time (Berking & Whitley, 2018). In response to this increasing need, many definitions have been proposed regarding the concept of emotion regulation. Cole et al. (1994), who view emotion regulation as the ability to respond flexibly to demands and reactions encountered in life through emotions, also acknowledge it as the ability to postpone responses that reflect one's emotional stance towards an event.

Campos et al. (2004), on the other hand, believe that emotion regulation involves behaviors that are generated by emotions, and they define this ability to change these reflections within social life. Gross, who defines emotion regulation as processes reflecting how individuals experience and express their emotions, also emphasizes the importance of timing when experiencing those emotions. Thompson, who shares a similar view to Gross, conceptualizes emotion regulation as the conceptualization of internal and external processes, emphasizing the appropriate modification of the intensity and transience of emotional responses experienced during these processes. Werner and Gross believe that emotions can sometimes be harmful to individuals, and they argue that emotion regulation involves the use of methods to reduce or enhance certain aspects of emotions during their modulation (Werner & Gross, 2009). Research has observed that emotion regulation skills encompass various developmental situations encountered throughout life, such as being able to tolerate spending time alone, forming friendships, engaging in learning activities, and coping with situations like danger, fear, and anxiety. Based on all of these, we can evaluate emotion regulation as the ability of an individual to provide appropriate emotional responses to situations throughout their life and to adjust them accordingly to the environment, time, and context in which they find themselves (Cole et al., 1994).

When explaining emotion regulation, we should also consider that there are some fundamental characteristics. One of these is the presence of goals in emotion regulation. The goals in emotion regulation are used to restructure the processes that create the emotion. Thompson mentions the existence of internal emotion regulations, which are self-initiated processes for managing emotions, and external regulations that occur through external influence. Thus, individuals rely on external emotion regulation supported by social contexts during infancy, while in adulthood, they benefit from internal emotion regulation. (Thompson, 1994). It has been observed that in certain situations, both external and internal emotion regulations can be utilized in lived experiences (Gross, 2008).

Another characteristic of emotion regulation is the responsibility taken by the individual to change the flow of emotions during regulation. In this regard, emotion regulation is considered to be an explicit, conscious, and effortful action. However, contrary to this, emotion regulation can also occur automatically and unconsciously. For example, consciously trying to see the positive side of a negative experience, or biting one's lip when angry can be considered conscious emotion regulation processes, whereas hiding one's affection due to the fear of rejection can be seen as utilizing implicit emotion regulation processes (Gross, 2014).

The third characteristic of emotion regulation is its impact on the temporal aspects and intensity of emotions. During the process of emotion regulation, it is possible to adjust the onset or rate of development of felt emotions, and at the same time, the intensity of the emotion can be suppressed or enhanced. Emotion regulation is responsible for aspects such as whether emotions will occur early or late, how early or late they will occur, whether their intensity will be increased or decreased, how long they will last, and balancing emotions (Gross, 2014). Thus, while not directly changing the emotion itself, emotion regulation can influence many qualitative attributes such as time, intensity, and others of the emotion. Cole and his colleagues suggest that emotion regulation not only influences these qualitative attributes but also enables individuals to generate and sustain emotions to interact and communicate with others in synchrony with their emotions. Additionally, emotion regulation is not only about stopping or regulating negative emotions but also effective in enhancing and sustaining positive emotions (Cole et al., 1994).

2.3.3. Emotion Regulation Strategies

In emotion regulation, there are many methods and strategies that individuals can use independently of the goals they want to achieve in order to regulate their emotions. For example, a teenager can listen to music to calm down, a child can play games, and an adult can spend the day by going for a walk. For emotion regulation, an individual can engage in multiple activities simultaneously or sequentially. Going for a long peaceful nature walk with a cup of coffee, or spending the day calmly by reading books or magazines can be examples of this. In this context, an individual may exist within multiple emotion regulation processes in order to regulate their own emotions (Werner & Gross, 2009). In this regard, it has led to conceptualization in the literature. Gross (1998) conceptualized the place of multiple strategies directly affecting emotion regulation processes within the situation, leading to the existence of emotion regulation strategies. He developed the '*Process Model*', which provides insights into the reasons, outcomes, and mechanisms underlying emotion regulation strategies.

The Process Model elaborately explains multiple stages involving emotion generation and demonstrates how the resulting strategies can vary over time. (Gross, 2008). Emotion regulation is multidimensional and comprises various processes. Gross and Thompson (2007) propose that emotion regulation processes consist of five categories, assuming that their primary effects will differ temporally. The first of these is '*situation selection*', which involves increasing positive emotions and minimizing negative emotions. When used appropriately, this category is important for maintaining an individual's psychological health in the long term. However, there are also instances where it can be misused. For example, avoiding social situations to reduce anxiety, which might be effective in managing emotions in the short term for a shy individual, is not beneficial for the person in the long run (Southam-Gerow, 2014). The second category, '*situation modification*', can be defined as the effort to seek out a new situation. Here, the changes refer more to alterations in social environments rather than cognitive changes. For example, a child feeling anxious about an exam may express a desire to talk to a friend about a different topic (Gross & Thompson, 2007). The third category is response-focused processes, referred to as '*attentional deployment*'. In maintaining the emotional state, individuals are expected to consciously focus on specific aspects of the situation. Distraction, focus, and mind-wandering can occur in this category. '*Distraction*' has been identified as the most

commonly used strategy in this category. This strategy involves directing one's emotions towards a more neutral state, diverting attention away from the physically present situation, or distancing oneself from negative emotions by bringing different positive thoughts or memories to mind. Another attentional deployment strategy is '*rumination*'. Unlike redirecting attention to a different stimulus, individuals using rumination are constantly focused on emotionally impactful stimuli and constantly directing their attention inward (Gross, 2008). The fourth category, '*cognitive reappraisal*', is termed changes, which involves thinking about evaluations to regulate emotional responses. An example of this would be thinking that losing the match is not as important after the game and considering that one played well during the match (Southam-Gerow, 2014). The final category is '*response modulation*', which involves the effort to organize responses during the expression of emotion after the emotion has emerged. In the response modulation category, it is believed that emotional responses have an impact on physiological, behavioral, and experiential elements (Gross, 2002). In this context, examples of addressing the physiological and experiential aspects of negative emotions include engaging in physical exercise or practicing deep breathing. As for the behavioral aspects, an example could be a student who performs poorly on an exam trying to conceal their embarrassment. Additionally, individuals have been observed to cope with their emotions by using alcohol, cigarettes, or drugs, as well as experiencing difficulties in achieving satiety in eating (Gross, 2014). One of the key strategies of response modulation, '*Expressive suppression*', emphasizes the reduction of emotions considered negative when individuals encounter an emotional situation. Here, the experience of the emotion cannot be prevented; rather, only the behavioral expression of the emotion is attempted to be suppressed, which may result in physiological reactions (Gross & John, 2003). An example of this could be a child starting to cry in a situation and calming down as a result of their parents' lack of reaction (Gross, 1998).

The Process Model divides all strategies into two main categories: antecedent-focused and response-focused. Antecedent-focused strategies involve situation selection, situation modification, attentional deployment, and cognitive reappraisal, occurring before emotional responses emerge (Saraiya & Walsh, 2015). It is observed that these strategies, also known as cognitive strategies, are more frequently preferred for downward regulation (Demaree et al., 2006). Reappraisal, distraction, and rumination strategies can indeed be added to antecedent-focused strategies. Within response-focused strategies, which are

named as response-focused, strategies such as response modulation, and suppression, become effective after emotional responses are formed (Webb et al., 2012). While recognized as an emotion regulation strategy, the acceptance strategy is associated with the easy expression of emotions and thoughts (Dixon, et al., 2020). Individuals within any emotional state strive to experience them as they are without feeling the need to change, suppress, or control them. We can also place the acceptance strategy in the response-focused strategies section because it is associated with how individuals experience these emotional reactions when they occur (Wolgast et al., 2011). Another strategy used consciously to change or repair a situation that creates negative emotions, as well as to gain control over the outcomes of those situations, is the problem-solving strategy (Aldao et al., 2010).

Research on emotion regulation is still ongoing, and there is no consensus reached yet. Emotion regulation focuses on psychological processes, emphasizing individual differences. Besides being recognized as a characteristic, emotion regulation is also defined as an individual change. Based on this, experts have shown a great deal of interest in the mental health of individuals who experience difficulty in emotion regulation and have conducted numerous studies with individuals to help them acquire emotion regulation skills (Cole et al., 2004).

2.3.4. Emotion Regulation Difficulties and Mental Health

In the process of emotion regulation, as mentioned above, various strategies are employed, but it cannot be said that these strategies are always functional for every situation. While some emotion regulation strategies are adaptive to individuals' adjustment, others are dysfunctional. These dysfunctional strategies hinder individuals from effectively expressing their emotional experiences, establishing themselves socially, and regulating themselves emotionally. This condition, known as emotion regulation dysregulation, implies that individuals often find themselves in challenging situations (Cole et al., 1994).

Researchers Gratz and Roemer (2004) state that the purpose of emotion regulation is to recognize and accept emotions, control and direct negative emotions, and be able to actively use emotion regulation skills when necessary. The absence of any of these situations or all of them indicates difficulty in emotion regulation for individuals. Bridges, Denham, and Ganiban (2004), who agree with this view, suggest that the inability to respond to

environmental changes while using emotion regulation strategies can lead to dysfunction in individuals and result in emotion regulation dysregulation.

In the literature studies, it is stated that adaptive emotion regulation strategies such as reappraisal, acceptance, and problem-solving harbor preventive and protective features for human psychopathology, whereas 'suppression,' 'avoidance,' and rumination are considered risky for human psychopathology (Aldao et al., 2010).

Evers and colleagues (2010) concluded in an experimental study that suppression increased consumption in the category of "comfort food" compared to reappraisal and spontaneous expression of emotions. Additionally, there are studies proving the relationship between emotion regulation and eating disorders (Karaoğlu & Erzi, 2019).

Studies suggesting the association between depression and difficulty in emotion regulation argue that rumination and suppression serve as strategies to perpetuate depression, while reappraisal, acceptance, and changing perspective strategies have positive effects on depression (Alsancak Akbulut, 2018). In a study conducted with individuals aged between 10 and 14 who have specific learning difficulties, it was found that individuals experiencing difficulty in emotion regulation exhibited symptoms of depression (Güzel et al., 2020). In a study conducted with 1724 adolescents in China, it was found that emotion regulation has positive effects on depression (Wu, et al., 2021).

It is known that emotion regulation is effective in managing anxiety. However, when comparing individuals with anxiety disorders to healthy individuals, it has been observed that those with anxiety disorders struggle more with emotion regulation. Additionally, an increase in emotion regulation skills has been found to help reduce anxiety levels (Özyurt et al., 2017). In another study conducted with adolescents, it was found that irrational beliefs predicted social anxiety through emotion regulation skills (Kodak, 2020).

2.3.5. Studies Related to Emotion Regulation

In a 2019 study examining the relationship between online addiction, attachment style, emotion regulation, depression, and anxiety, which included 754 university students, it was found that difficulties in individuals' emotion regulation were a risk factor for the development of internet addiction through anxiety and depression (Ceyhan et al., 2019).

In a 2018 study examining the relationship between adolescent problems and emotion regulation strategies conducted with 311 adolescents, no significant difference was found between the problems experienced by adolescents and their emotion regulation strategies, while a significant difference was found based on their grade levels (Haşimoğlu & Aslangiray, 2018).

In 2016, researchers investigating the extent to which alexithymia and difficulties in emotion regulation predict gambling disorder among 246 male individuals with an average age of 33 found that alexithymia and difficulties in emotion regulation significantly predict gambling disorder. They also identified that difficulties in emotion regulation play a mediating role between pathological gambling and alexithymia (Elmas et al., 2016).

A 2009 study examined the relationship between emotion regulation strategies and symptoms of depression, anxiety, eating disorders, and substance dependence. It was found that the avoidance strategy of emotion regulation is highly associated with anxiety and depression, and moderately associated with eating disorders and substance dependence (Aldao et al., 2009).

In a 2008 study investigating the mutual effects between emotion regulation skills and emotional adjustment, the impact of emotion regulation skills on emotional adjustment was analyzed with 446 participants, while the effect of emotional adjustment on emotion regulation skills was analyzed with 635 participants. The results indicated that emotion regulation affects emotional adjustment, but emotional adjustment does not affect emotion regulation. Thus, it was concluded that utilizing emotion regulation skills is important in the treatment and prevention of mental health issues (Berking et al., 2008).

CHAPTER III

METHOD

3.1. Model of the Study

The research was carried out using the correlational research model, which is one of the quantitative research methods. The correlational research model, which examines and analyzes the relationship between two or more variables, is utilized. In this model, while examining whether the variables change together, any observed changes are analyzed to understand their nature (Karasar, 1995). Data obtained from the scales were used to investigate the relationship between university students' digital game addiction, attachment styles, and emotion regulation levels, and also the differences between demographic characteristics and these variables.

3.2. Population and Sample of the Study

The population of this study consists of undergraduate students studying in Turkey. According to the data shared by the Council of Higher Education (YÖK), the population size encompasses 6,950,142 students. In light of this information, the sample size has been calculated according to the formula specified below (Baş, 2010).

$$n = \frac{Nt^2 p (1-p)}{d^2 (N-1) + t^2 p(p-1)}$$

Here, (n) represents the sample size, (N) represents the population size, (t) represents the confidence level (1.96), (p) represents the probability of occurrence of the observed data (0.50), and (d) represents the error rate (0.05). Using this formula, the sample size was calculated to be 384 students. In light of this information, data for the current study were collected from a total of 314 university students, comprising 158 females and 156 males.

In a study, once the research method for the process has been determined, the population to be studied is identified, and the phase of selecting samples from this population begins. The population is defined as the largest group that encompasses all entities from which all necessary data are collected to answer the questions, while the sample is defined as a limited subset selected from this large population used for collecting information (Büyükcü, 2020). The population of the study consists of individuals who are enrolled in

undergraduate programs at state and private universities during the academic years of 2022-2023 and 2023-2024. While forming the sample of the research, participants were reached through university groups, mailing lists, and social media. By sharing a link, participants were encouraged to share it with others, resulting in 314 volunteers participating online via 'Google Forms.' Initially, 320 people were reached through the forms, but the forms of 314 participants were considered valid. The convenience sampling method was used as the sampling method, in which participants are selected based on their easy accessibility to the researcher rather than being randomly chosen from a large population (Fricker & Schonlau, 2002).

3.3 Instruments

For the data collection process the 'Demographic Information Form', 'Digital Game Addiction Scale for University Students' (DGAS), 'Three-Dimensional Attachment Styles Scale' (TDASS), and 'Emotion Regulation Questionnaire' (ERQ) were administered to the participants.

3.3.1. Demographic Information Form (Appendix 1)

The demographic information form used in the study (See Appendix 1) was prepared by the researcher, aiming to determine the socio-demographic characteristics of the participants. The demographic information form includes questions about the participants' gender, age, parental marital status, daily digital gaming duration, preferred type of digital game, age of starting digital gaming, preferred device type for gaming etc.

3.3.2. Digital Game Addiction Scale for University Students (DGAS) (Appendix 2)

The Digital Game Addiction Scale (See Appendix 2) for University Students was developed by Hazar and Hazar (2019) and consists of 21 questions organized into 3 subscales. The subscale within the scale includes the dimension of “*Excessive Focus and Procrastination*” (11 items); the other subscale consists of “*Withdrawal and Seeking*” (6 items); and finally, the “*Mood Alteration and Immersion*” subscale (4 items). The minimum score that can be obtained from the scale is 21, and the maximum score is 105. When rating the scale scores, those who score between 1-21 are classified as the normal group, those between 22-42 as the low-risk group, those between 43-63 as the at-risk group, those between 64-84 as the dependent group, and finally, those between 85-105 as the highly

dependent group. A 5-point Likert scale was used to evaluate the scale items, with responses scored as follows: '*Strongly Disagree (1)*', '*Disagree (2)*', '*Neutral (3)*', '*Agree (4)*', '*Strongly Agree (5)*'. The Cronbach's Alpha internal consistency value for the scale was found to be .95, with .76 for the first sub-factor, .78 for the second sub-factor, and .89 for the third sub-factor (Hazar & Hazar, 2019). In this study, the '*Excessive Focus and Procrastination*' sub-dimension consists of 11 items and has a Cronbach's Alpha value of .95. The '*Withdrawal and Seeking*' sub-dimension consists of 6 items with a Cronbach's Alpha value of .94, and finally, the '*Mood Alteration and Immersion*' sub-dimension consists of 4 items with a Cronbach's Alpha value of .85.

3.3.3. Three-Dimensional Attachment Styles Scale (TDASS) (Appendix 3)

The Three-Dimensional Attachment Styles Scale (See Appendix 3) was developed by Evren Erzen (2016) to provide an alternative measurement tool for identifying attachment styles in the literature. The scale includes three different 'Attachment Styles: '*Secure Attachment Style*', '*Anxious-Ambivalent Attachment Style*', and '*Avoidant Attachment Style*'. The scale consists of 18 items in a 5-point Likert format, rated from 1 to 5 as follows: '*Strongly Disagree (1)*', '*Disagree (2)*', '*Neutral (3)*', '*Agree(4)*', and '*Strongly Agree(5)*'. The scale includes 5 items for '*Secure Attachment Style*', 7 items for '*Avoidant Attachment Style*', and 6 items for '*Anxious-Ambivalent Attachment Style*'. The scale does not include any reverse-scored items. Since the scale contains two negative and one positive subdimension, an overall Cronbach's Alpha value for the entire scale cannot be determined. Therefore, Cronbach's Alpha values were examined separately for each subdimension. The internal consistency coefficients (Cronbach's Alpha) for the subdimensions were found to be .80 for the '*Avoidant Attachment Style*', .69 for '*Secure Attachment Style*', and .71 for '*Anxious-Ambivalent Attachment Style*'. In the validity and reliability study, exploratory factor analysis showed that the 18 items on the scale were consistently grouped under three dimensions. The item-total correlation values of the scale ranged from .49 to .75 (Erzen, 2016). In this study, the '*Avoidant Attachment Style*' subscale was found to have 7 items and a Cronbach's Alpha value of .90, the '*Secure Attachment Style*' subscale had 5 items and a Cronbach's Alpha value of .75, and the '*Anxious-Ambivalent Attachment Style*' subscale had 6 items and a Cronbach's Alpha value of .87.

3.3.4. Emotion Regulation Questionnaire (ERQ) (Appendix 4)

Based on the previous work of Gross and John, this survey, which was updated in 2003, was later adapted into Turkish by Totan in 2015. The 'Emotion Regulation Questionnaire', designed to measure an individual's tendencies to regulate their emotions in two ways, consists of two subscales: '*Cognitive Reappraisal*' (6 items) and '*Suppression*' (4 items). The 'Emotion Regulation Questionnaire' includes ten items rated on a seven-point scale: '*Strongly disagree (1)*', '*Disagree (2)*', '*Somewhat disagree (3)*', '*Neutral (4)*', '*Somewhat agree (5)*', '*Agree (6)*', and '*Strongly agree (7)*'. In the original scale, Cronbach's Alpha coefficients were .73 for '*Cognitive Reappraisal*' and .79 for '*Suppression*', while in the Turkish adaptation, these coefficients were found to be .78 for '*Cognitive Reappraisal*', .71 for '*Suppression*', and .72 for the entire scale. The item-total correlations for the scale ranged from .43 to .62 for cognitive reappraisal and from .33 to .43 for suppression. Due to the theoretical foundation of the Emotion Regulation Questionnaire, a total score for the two dimensions (Cognitive Reappraisal and Suppression) cannot be obtained, and each dimension is evaluated separately (Totan, 2015). In this study, the '*Cognitive Reappraisal*' subscale had a Cronbach's Alpha value of .88 with 6 items, and the '*Suppression*' subscale had a Cronbach's Alpha value of .81 with 4 items.

3.4. Data Analysis

The data used in the study were transferred to a computer environment and analyzed with the assistance of IBM SPSS 26.0 software. Initially, an internal consistency analysis was conducted to assess the reliability of the scales. The Cronbach Alpha coefficient is an important method used to measure the reliability and construct validity of a measurement tool. At the beginning of the research, frequency tables presenting the distribution of demographic and other characteristics of university students were provided. Before proceeding to relational analyses, the data set was examined for normal distribution properties, skewness, and kurtosis values, and it was determined that the data set exhibited a normal distribution. It was also ascertained that the sample size was adequate and conformed to the criteria of the central limit theorem. Due to the data showing normal distribution characteristics, the Independent T-test was used for comparisons between the two groups. For the comparison of three or more groups, a One-Way Analysis of Variance (ANOVA) was applied. Following ANOVA tests that found significant results, the assumption of homogeneity of variances was made, and the Tukey HSD test was used for

group comparison tests (Richardson, 2011). Effect size measures, such as Cohen's d for independent t-tests and partial eta squared (η_p^2) for ANOVA, quantify the magnitude of differences or associations observed in research. Cohen's d indicates the standardized difference between two means, with values typically interpreted as small (0.20), medium (0.50), or large (0.80) effects (Cohen, 1988). Partial eta squared represents the proportion of variance in the dependent variable associated with group membership, with 0.01 indicating a small effect, 0.06 a medium effect, and 0.14 a large effect (Lakens, 2013).

Pearson Correlation Analysis was utilized to examine the relationships between scales for solving the main research question. The level of significance for statistical analyses was set at $p < .05$, and findings were reported through appropriate tables.

CHAPTER IV

RESULTS

4.1. Characteristics of Participants

In this study, frequency analyses regarding the sociodemographic characteristics of students attending state and private universities have been conducted. The analysis results encompass demographic information such as the participants' gender and the marital status of their parents. The research involved participation from 314 students across 60 different universities, with the majority enrolled at Istanbul University, Istanbul Okan University, Anadolu University, Eskişehir Osmangazi University, and Yeditepe University. The participants predominantly receive their education in the following faculties, in order: Faculty of Letters, Faculty of Law, Faculty of Health Sciences, Faculty of Economics and Administrative Sciences, Faculty of Science and Letters, Faculty of Education, and Faculty of Engineering. When examining the gender of the participants, approximately half of the 314 participants were women (50.3%, $n = 158$) and half were men (49.7%, $n = 156$). This distribution indicates that the study had a gender-balanced group of participants. The average age of the students participating in the research was determined to be 20.89 ± 1.74 . Findings related to the marital status of the parents revealed that 78.3% ($n = 246$) of the participants reported that their parents were together, while 21.7% ($n = 68$) stated they were separated.

Table 1. Frequency Analysis Results Related to the Sociodemographic Characteristics of University Students ($n=314$)

Sociodemographic Characteristics		<i>n</i>	%
Gender	Female	158	50.3
	Male	156	49.7
Marital status of the parents	Separated	68	21.7
	Married	246	78.3
Age		$M = 20.89$	$SD = 1.74$

Note. "*n*" represents the number of participants within each specific demographic category, and "%" indicates the percentage of participants that each category comprises out of the total sample. *M* indicates mean and *SD* indicates Standard Deviation.

Table 2 explores the frequency analysis results concerning the digital gaming habits and preferences of university students. The analyses cover variables such as the age at which participants began playing digital games, the preferred device for playing games, the average daily time spent on digital games, and the most frequently chosen types of digital games. The findings related to the age of onset for playing digital games show that 36.6% ($n = 115$) of the participants started in early childhood (2-8 years), 27.4% ($n = 86$) in late childhood (8-11 years), 22.0% ($n = 69$) in early adolescence (11-14 years), and 14.0% ($n = 44$) at the onset of adulthood (>14 years). This indicates that a significant portion of the students began playing digital games at an early age. Regarding the preferred gaming device, 42.7% ($n = 134$) of the participants favored computers, 33.8% ($n = 106$) mobile phones, 13.7% ($n = 43$) console games, and 9.9% ($n = 31$) tablets. This distribution highlights that while computers remain the most popular gaming device, mobile devices also hold significant importance. The findings related to the average daily time spent on digital games reveal that 67.8% ($n = 213$) of the participants play digital games for 0-3 hours per day, 18.2% ($n = 57$) for 3-5 hours, and 14.0% ($n = 44$) for more than 5 hours. This suggests that a large portion of students play digital games for up to an average of 3 hours daily. When examining the most frequently chosen types of digital games, 38.6% ($n = 119$) of the participants expressed a preference for action games, 27.9% ($n = 86$) for creativity games, 17.5% ($n = 54$) for puzzles, sports, and strategy games, and 15.9% ($n = 49$) for adventure games.

Table 2. Frequency Analysis Results Concerning the Characteristics Related to Digital Gaming Among University Students

Characteristics Related to Digital Gaming		<i>n</i>	%
Age of Onset for Playing Digital Games ($n = 314$)	Early Childhood (2-8 Years)	115	36.6
	Late Childhood (8-11 Years)	86	27.4
	Early Adolescence (11-14 Years)	69	22.0
	Onset of Adulthood (>14 Years)	44	14.0
Preferred Gaming Device ($n = 314$)	Phone	106	33.8
	Tablet	31	9.9
	Computer	134	42.7
	Console	43	13.7

Average Daily Time Spent on Digital Games (n = 314)	0-3 Hours	213	67.8
	3-5 Hours	57	18.2
	Over 5 Hours	44	14.0
Most Frequently Chosen Type of Digital Game (n=308)	Action Games	119	38.6
	Adventure Games	49	15.9
	Creativity Games	86	27.9
	Puzzle, Sports, and Strategy Games	54	17.5

Note. "n" represents the number of participants within each specific demographic category, and "%" indicates the percentage of participants that each category comprises out of the total sample.

4.2. Reliability Analysis for the Scales

The results of the reliability analysis for the subscales of the instruments used in this study are presented in Table 4, showing the Cronbach's Alpha (α) values, which measure the internal consistency of the scales. The scales are identified as the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ), with reliability coefficients calculated for different subscales of each instrument.

Under the Digital Game Addiction Scale (DGAS), the "Excessive Focus and Procrastination" subscale consists of 11 items and has a Cronbach's Alpha value of .95. The "Withdrawal and Seeking" subscale, with 6 items, exhibits high internal consistency with a value of .94. The "Mood Alteration and Immersion" subscale, comprising 4 items, has a reliability coefficient of .85. The overall DGAS, with 21 items, has a Cronbach's Alpha of .97, indicating excellent internal consistency. Within the Three-Dimensional Attachment Styles Scale (TDASS), the "Secure Attachment Style" with 5 items has a Cronbach's Alpha value of .75; the "Avoidant Attachment Style" with 7 items has a value of .90; and the "Anxious-Ambivalent Attachment Style" with 6 items has a value of .87. In the Emotion

Regulation Questionnaire (ERQ), the "Cognitive Reappraisal" with 6 items reached a reliability value of .88, and the "Suppression" with 4 items achieved a value of .81.

These reliability analysis results indicate that the scales and their subscales used in the research are reliable measurement tools within the context of the study. The high Cronbach's Alpha values demonstrate that the scales have a consistent and reliable capacity for data collection and can produce reliable results relevant to the research questions.

Table 3. Reliability Analysis Results for Scale Subscales (n=314)

Scales	Items	α
Digital Game Addiction Scale (DGAS)	21	.97
Excessive Focus and Procrastination	11	.95
Withdrawal and Seeking	6	.94
Mood Alteration and Immersion	4	.85
Three-Dimensional Attachment Styles Scale (TDASS)		
Secure Attachment Style	5	.75
Avoidant Attachment Style	7	.90
Anxious-Ambivalent Attachment Style	6	.87
Emotion Regulation Questionnaire (ERQ)		
Cognitive Reappraisal	6	.88
Suppression	4	.81

Not: Cronbach Alfa (α)

Table 4 presents the descriptive statistics for the subscales related to the students participating in the research. According to these results, for the subscales of the Digital Game Addiction Scale (DGAS), the mean and standard deviation values obtained were 25.85±11.54 for Excessive Focus and Procrastination, 12.38±6.41 for Withdrawal and Seeking, and 10.68±4.42 for Mood Alteration and Immersion. The total DGAS score was 48.91±21.32. For the subscales of the Three-Dimensional Attachment Styles Scale (TDASS), Secure Attachment Style was found to be 18.42±3.62, Avoidant Attachment Style

16.66±6.06, and Anxious-Ambivalent Attachment Style 15.22±5.25. From the subscales of the Emotion Regulation Questionnaire (ERQ), Cognitive Reappraisal had a mean and standard deviation of 30.20±7.49, and Suppression 17.03±5.90. The skewness and kurtosis values being between -2 and 2 indicate that all subscale scores approximately exhibit a normal distribution, suggesting that these scales are reliable in terms of the data set distribution.

Table 4. Descriptive Statistics for DGAS, TDASS, and ERQ Scale Subscales (n=314)

Subscales	<i>M</i>	<i>SD</i>	<i>Mod</i>	<i>Med</i>	skewness (<i>SE</i> = .14)	kurtosis (<i>SE</i> = .27)
Excessive Focus and Procrastination	25.85	11.54	11.00	24.00	.64	-.40
Withdrawal and Seeking	12.38	6.41	6.00	11.50	.83	-.18
Mood Alteration and Immersion	10.68	4.42	4.00	11.00	.13	-.77
Total DGAS	48.91	21.32	21.00	45.00	.63	-.40
Secure Attachment Style	18.42	3.62	18.00	19.00	-.79	.52
Avoidant Attachment Style	16.66	6.06	14.00	16.00	.64	.23
Anxious-Ambivalent Attachment Style	15.22	5.25	18.00	16.00	.05	-.35
Cognitive Reappraisal	30.20	7.49	42.00	31.00	-.71	.74
Suppression	17.03	5.90	17.00	17.00	-.17	-.50

Note. The table presents the mean (*M*), standard deviation (*SD*), mode (*Mod*), median (*Med*), skewness, and kurtosis for each scale subdimension. DGAS = Digital Game Addiction Scale, TDASS = Three-Dimensional Attachment Styles Scale, ERQ = Emotion Regulation Questionnaire.

The Variation of Scale Subscales by Students' Sociodemographic, and Digital Gaming Characteristics

The Variation of Scale Subscales According to Students' Sociodemographic, Educational, and Digital Gaming Characteristics. This section examines the differences in scores among the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ) according to the gender of university students, utilizing independent t-tests. The results related to the analysis are presented in Table 5.

Men scored higher on average (32.28 ± 10.98) than females (19.49 ± 8.05) in the Excessive Focus and Procrastination subscale of the DGAS, and this difference is statistically significant, $t(312) = -11.78, p < .001$. Similarly, in the Withdrawal and Seeking subscale, men's average scores (15.26 ± 6.69) were significantly higher than females' (9.53 ± 4.62), $t(312) = -8.83, p < .001$. For the Mood Alteration and Immersion subscale, men's average scores (12.50 ± 4.09) were also significantly higher compared to females' (8.89 ± 4.00), $t(312) = -7.90, p < .001$. The total DGAS score for men (60.04 ± 20.68) was significantly higher than for females (37.92 ± 15.49), $t(312) = -10.74, p < .001$.

Regarding the TDASS subscales, females scored significantly higher (19.17 ± 3.42) than men (17.65 ± 3.67) in the Secure Attachment Style subscale, $t(312) = 3.79, p < .001$. Conversely, men scored higher (18.49 ± 6.47) than females (14.85 ± 5.04) in the Avoidant Attachment Style subscale, and this difference is statistically significant, $t(312) = -5.56, p < .001$. In the Anxious-Ambivalent Attachment Style subscale, men's average scores (15.82 ± 5.21) showed a statistically significant difference compared to females' (14.63 ± 5.23), $t(312) = -2.01, p = .045$. Finally, for the ERQ subscales, females had a higher average score (31.40 ± 7.54) than men (28.99 ± 7.27) in the Cognitive Reappraisal subscale, and this difference is statistically significant, $t(312) = 2.87, p = .004$. In the Suppression subscale, men's average scores (18.49 ± 5.37) were significantly higher than females' (15.58 ± 6.07), $t(312) = -4.49, p < .001$.

These findings indicate that gender has a significant impact on university students' digital game addiction, attachment styles, and emotion regulation strategies. The higher scores among male students in the subscales related to digital game addiction suggest a greater inclination towards digital gaming and more intense experiences in this area among

this group. Men tend to have higher overall DGAS scores, indicating a stronger tendency towards digital game addiction. Conversely, the higher scores among female students in positive emotion regulation strategies such as secure attachment style and cognitive reappraisal suggest these strategies are more commonly employed by females, reflecting their ways of managing emotional experiences.

Table 5. Independent T-Test Results: Variation in DGAS, TDASS, and ERQ Scale Subscales by Gender of University Students (n=314)

Subscales	Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i> (312)	<i>p</i>	<i>Cohen's d</i>
Excessive Focus and Procrastination	Female	158	19.49	8.05	-11.78	<.001	1.33
	Male	156	32.28	10.98			
Withdrawal and Seeking	Female	158	9.53	4.62	-8.83	<.001	.99
	Male	156	15.26	6.69			
Mood Alteration and Immersion	Female	158	8.89	4.00	-7.90	<.001	.89
	Male	156	12.50	4.09			
Total DGAS	Female	158	37.92	15.49	-10.74	<.001	1.21
	Male	156	60.04	20.68			
Secure Attachment Style	Female	158	19.17	3.42	3.79	<.001	.43
	Male	156	17.65	3.67			
Avoidant Attachment Style	Female	158	14.85	5.04	-5.56	<.001	.63
	Male	156	18.49	6.47			
Anxious-Ambivalent Attachment Style	Female	158	14.63	5.23	-2.01	.045	.22
	Male	156	15.82	5.21			
Cognitive Reappraisal	Female	158	31.40	7.54	2.87	.004	.32
	Male	156	28.99	7.27			
Suppression	Female	158	15.58	6.07	-4.49	<.001	.51
	Male	156	18.49	5.37			

Note. The table reports the results of independent t-tests comparing female and male university students on various measures of DGAS, TDASS, and ERQ Scale Subscales. n = sample size; M = mean; SD = standard deviation; $t(312)$ = t-value with degrees of freedom (312); p = significance level. Effect sizes were calculated using Cohen's d , offering insight into the magnitude of observed differences.

The Pearson Correlation Analysis results in Table 6 indicate the relationship between the ages of university students and the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ). The analysis reveals a slight but significant relationship between students' ages and some subscale scores. Specifically, a positive correlation was found between the Excessive Focus and Procrastination subscale and age ($r = .15, p = .006$), suggesting that scores in this subscale slightly increase with age. A similar relationship is observed for the Withdrawal and Seeking subscale ($r = .12, p = .026$), indicating that scores in this dimension increase with age. The total DGAS score also showed a positive correlation with age ($r = .14, p = .014$), supporting the idea that symptoms related to digital game addiction might increase as students get older. On the other hand, a lower and nonsignificant correlation was found between the Mood Alteration and Immersion subscale and age ($r = .08, p = .145$), indicating no significant relationship between age and this characteristic. Although a negative correlation was found between the Secure Attachment Style subscale and age ($r = -.11, p = .061$), this relationship is not statistically significant, suggesting no strong relationship between age and secure attachment. No significant relationship was found between age and the Avoidant Attachment Style ($r = .02, p = .689$) or the Anxious-Ambivalent Attachment Style ($r = -.01, p = .940$), indicating that age does not have a significant effect on these attachment styles. Lastly, low and nonsignificant correlations were found between age and the Cognitive Reappraisal ($r = .04, p = .445$) and Suppression ($r = .05, p = .352$) subscales, suggesting that age did not have a significant impact on these characteristics.

Overall, these results indicate that age might lead to a slight increase in scores, particularly in the subscales related to digital game addiction, Excessive Focus and Procrastination, and Withdrawal and Seeking, while no significant relationship has been found between age and the other scale subscales. Finally, the results suggest that age has a slight positive correlation with total DGAS scores, indicating an increase in digital game addiction symptoms with age.

Table 6. Pearson Correlation Analysis - Relationship of Scale Subscales with Age
(n=314)

Subscales	Age	
	<i>r</i>	<i>p</i>
Excessive Focus and Procrastination	.15	.006
Withdrawal and Seeking	.12	.026
Mood Alteration and Immersion	.08	.145
Total DGAS	.14	.014
Secure Attachment Style	-.11	.061
Avoidant Attachment Style	.02	.689
Anxious-Ambivalent Attachment Style	-.01	.940
Cognitive Reappraisal	.04	.445
Suppression	.05	.352

The independent t-test examination of the differences in scores across the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ) according to the parental marital status of university students was conducted and presented in Table 7. The analysis aimed to determine the impact of the parents' marital status on students' scores on these scales, revealing significant differences between students with separated parents and those with parents living together.

Students with separated parents scored statistically significantly higher on the Excessive Focus and Procrastination subscale (30.09 ± 14.96) compared to students whose parents live together (24.67 ± 10.13), $t(312) = 3.48$, $p < .001$. A similar trend was observed in the Withdrawal and Seeking subscale, where students with separated parents (14.72 ± 8.02) scored higher than those with parents together (11.73 ± 5.74), with this difference being

statistically significant, $t(312) = 3.47, p < .001$. In the Mood Alteration and Immersion subscale, the average score of students with separated parents (12.41 ± 5.13) was also higher than that of students with parents together (10.21 ± 4.09), and this difference was significant, $t(312) = 3.71, p < .001$. The total DGAS score for students with separated parents (57.22 ± 27.33) was significantly higher than for those with parents together (46.61 ± 18.77), $t(312) = 3.70, p < .001$. However, no statistically significant difference was found in the Secure Attachment Style subscale between students with separated parents and those with parents together, $t(312) = -1.88, p = .062$. In the Avoidant Attachment Style subscale, students with separated parents (19.00 ± 7.98) scored higher than those with parents together (16.02 ± 5.26), and this difference was statistically significant, $t(312) = 3.66, p < .001$. No significant difference was found in the Anxious-Ambivalent Attachment Style subscale in the context of parental marital status, $t(312) = 0.75, p = .452$. For the Cognitive Reappraisal subscale, students with separated parents had a higher average score (32.31 ± 7.31) than those with parents together (29.62 ± 7.46), with this difference being statistically significant, $t(312) = 2.64, p = .009$. Similarly, in the Suppression subscale, students with separated parents (19.04 ± 6.18) scored higher than those with parents together (16.47 ± 5.71), and this difference was statistically significant, $t(312) = 3.23, p < .001$.

In conclusion, the parental marital status of university students has a significant effect on psychological and behavioral characteristics such as digital game addiction, attachment styles, and emotion regulation strategies. The higher scores in digital game addiction and avoidant attachment style among students with separated parents indicate the significant role of family structure in students' emotional and social adaptation processes. Overall, students with separated parents tend to have higher total DGAS scores, highlighting the impact of parental marital status on these psychological measures.

Table 7. Independent T-Test Results: Variation in DGAS, TDASS, and ERQ Scale Subscales by University Students' Parental Marital Status (n=314)

Subscales	Parental marital status	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i> (312)	<i>p</i>	<i>Cohen's d</i>
	Separated	68	30.09	14.96	3.48	<.001	.48

Excessive Focus and Procrastination	Married	246	24.67	10.13				
Withdrawal and Seeking	Separated	68	14.72	8.02	3.47	<.001	.47	
	Married	246	11.73	5.74				
Mood Alteration and Immersion	Separated	68	12.41	5.13	3.71	<.001	.50	
	Married	246	10.21	4.09				
Total DGAS	Separated	68	57.22	27.33	3.70	<.001	.60	
	Married	246	46.61	18.77				
Secure Attachment Style	Separated	68	17.69	3.81	-1.88	.062	.25	
	Married	246	18.62	3.55				
Avoidant Attachment Style	Separated	68	19.00	7.98	3.66	<.001	.50	
	Married	246	16.02	5.26				
Anxious-Ambivalent Attachment Style	Separated	68	15.65	6.11	0.75	.452	.10	
	Married	246	15.11	4.99				
Cognitive Reappraisal	Separated	68	32.31	7.31	2.64	.009	.36	
	Married	246	29.62	7.46				
Suppression	Separated	68	19.04	6.18	3.23	<.001	.44	
	Married	246	16.47	5.71				

Note. The table reports the results of independent t-tests comparing Parental marital status and various measures of DGAS, TDASS, and ERQ Scale Subscales. *n* = sample size; *M* = mean; *SD* = standard deviation; *t* (312) = t-value with degrees of freedom (312); *p* = significance level. Effect sizes were calculated using Cohen's *d*, offering insight into the magnitude of observed differences.

Table 8 presents the results of the One-Way Analysis of Variance (ANOVA) that highlight significant differences in scores across the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ) based on the daily digital gaming duration of university students. The results indicate that as the daily gaming time increases, particularly scores related to digital game addiction significantly rise. Specifically, significant differences were

observed in the Excessive Focus and Procrastination ($F(2,311) = 128.65, p < .001$), Withdrawal and Seeking ($F(2,311) = 112.48, p < .001$), and Mood Alteration and Immersion ($F(2,311) = 71.26, p < .001$) subscales based on students' daily digital gaming durations. Post-hoc tests between groups showed significant differences, indicating that scores in the DGAS subscales increase as the average daily gaming time rises. The total DGAS score also showed significant differences ($F(2,311) = 130.08, p < .001$), indicating that overall digital game addiction increases with daily gaming time. Furthermore, significant differences were found in the Secure Attachment Style ($F(2,311) = 14.86, p < .001$), Avoidant Attachment Style ($F(2,311) = 25.31, p < .001$), and Anxious-Ambivalent Attachment Style ($F(2,311) = 12.98, p < .001$) subscales according to the daily digital gaming durations. As gaming time increases, secure attachment decreases, while anxious and avoidant attachment styles tend to increase. Lastly, the Suppression ($F(2,311) = 17.88, p < .001$) subscale showed significant variation with digital gaming time, whereas the Cognitive Reappraisal ($F(2,311) = 1.22, p = .297$) subscale did not demonstrate a significant difference.

These findings suggest that the increase in students' digital gaming durations is associated with significant effects, especially on indicators of digital game addiction and some social attachment styles. The increase in daily gaming duration leading to higher scores in the Excessive Focus and Procrastination, Withdrawal and Seeking, and Mood Alteration and Immersion subscales may indicate a rising risk of digital game addiction. Additionally, the overall scores reveal that increased daily gaming duration is associated with higher total DGAS scores, indicating a greater risk of digital game addiction. Moreover, the observed increase in social attachment styles such as Avoidant Attachment Style and Anxious-Ambivalent Attachment Style with longer gaming durations may indicate potential negative impacts on students' social relationships and emotional attachment patterns.

Table 8. One-Way Analysis of Variance (ANOVA) Results: Variation in DGAS, TDASS, and ERQ Scale Subscales Based on the Daily Digital Gaming Duration of University Students (n=314)

Subscales	Average Daily Time Spent on Digital Games	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F(2,311)</i>	<i>p</i>	<i>Post-Hoc</i>	η_p^2
	0-3 Hours	213	20.64	7.84			b.c	
	3-5 Hours	57	34.14	9.96	128.65	<.001	a.c	.453

Excessive Focus and Procrastination	Over 5 Hours	44	40.30	9.91				a.b	
Withdrawal and Seeking	0-3 Hours	213	9.61	4.24				b.c	
	3-5 Hours	57	16.61	5.92	112.48	<.001	a.c		.420
	Over 5 Hours	44	20.27	6.26			a.b		
Mood Alteration and Immersion	0-3 Hours	213	9.01	3.66				b.c	
	3-5 Hours	57	13.51	3.91	71.26	<.001	a.c		.314
	Over 5 Hours	44	15.14	3.42			a.b		
Total DGAS	0-3 Hours	213	39.26	14.49				b.c	
	3-5 Hours	57	64.26	18.28	130.077	<.001	a.c		.315
	Over 5 Hours	44	75.70	21.32			a.b		
Secure Attachment Style	0-3 Hours	213	19.14	3.31				b.c	
	3-5 Hours	57	17.25	3.89	14.86	<.001	a		.087
	Over 5 Hours	44	16.45	3.66			a		
Avoidant Attachment Style	0-3 Hours	213	15.14	4.94				b.c	
	3-5 Hours	57	19.16	6.66	25.31	<.001	a		.140
	Over 5 Hours	44	20.82	7.21			a		
Anxious- Ambivalent Attachment Style	0-3 Hours	213	14.25	5.18				b.c	
	3-5 Hours	57	16.70	4.74	12.98	<.001	a		.077
	Over 5 Hours	44	18.00	4.87			a		
Cognitive Reappraisal	0-3 Hours	213	30.66	7.27					
	3-5 Hours	57	29.32	7.53	1.22	.297	-		.008
	Over 5 Hours	44	29.16	8.42					
Suppression	0-3 Hours	213	15.72	5.58				b.c	.103
	3-5 Hours	57	19.89	5.56	17.88	<.001	a		
	Over 5 Hours	44	19.61	5.82			a		

Note. Results of the One-Way ANOVA examining differences across Students' Average Daily Time Spent on Digital Games in DGAS, TDASS, and ERQ Scale among university students ($n = 314$). M = Mean; SD = Standard Deviation; $F(2, 311)$ = F-statistic with degrees of freedom; p = significance level. Post-hoc indicates significant pairwise comparisons of the Tukey HSD test among Students' Average Daily Time Spent on Digital Games groups with no significant differences marked as "--". The symbols a, b, and c denote the Daily Time Spent on Digital Games groups 0-3 hours, 3-5 hours, and Over 5 Hours, respectively. Effect sizes were calculated using partial Eta squared (η_p^2), offering insight into the magnitude of observed differences.

Table 9 includes the results of the One-Way Analysis of Variance (ANOVA) examining differences in scores across the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ) based on university students' preferred types of digital games. The analysis indicates that the types of games students prefer have significant effects on psychological and behavioral characteristics, particularly on digital game addiction and social attachment styles. In this comparison of Action, Adventure, Creativity, and Puzzle games, students who prefer Action games scored significantly higher in the Excessive Focus and Procrastination subscale ($F(3,304) = 13.04, p < .001$) compared to those preferring other types of games. Similarly, scores were higher for those preferring Action games in the Withdrawal and Seeking ($F(3,304) = 8.95, p < .001$) and Mood Alteration and Immersion ($F(3,304) = 9.84, p < .001$) subscales, suggesting a possible association between action games and higher indicators of digital game addiction. The total DGAS score also showed significant differences ($F(3,304) = 12.07, p < .001$), with students preferring Action games scoring higher overall. For the Secure Attachment Style subscale, students preferring Adventure games showed different scores ($F(3,304) = 2.71, p = .045$), although this difference is not as pronounced as in other scales. In the Avoidant Attachment Style ($F(3,304) = 6.59, p < .001$) and Anxious-Ambivalent Attachment Style ($F(3,304) = 3.95, p = .009$) subscales, scores for students preferring Action and Adventure games were higher compared to those preferring Creativity and Puzzle games, which might suggest negative impacts of action and adventure games on students' social attachment styles. In the Suppression subscale, scores for students preferring Action games were higher ($F(3,304) = 8.45, p < .001$), while no significant difference was observed in the Cognitive Reappraisal subscale across game types ($F(3,304) = 0.83, p = .479$).

These findings suggest that the types of digital games preferred by university students can have significant effects on their psychological and behavioral characteristics. Specifically, a preference for action and adventure games might be associated with an increased risk of digital game addiction and problems with certain social attachment styles. In conclusion, the overall scores reveal that students who prefer Action games tend to have higher total DGAS scores, indicating a greater risk of digital game addiction.

Table 9. One-Way Analysis of Variance (ANOVA) Results: Variation in DGAS, TDASS, and ERQ Scale Subscales Based on University Students' Most Frequently Chosen Type of Digital Game (n=308)

Subscales	Most Frequently Chosen Type of Digital Game	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i> (3, 304)	<i>p</i>	<i>Post-Hoc</i>	η_p^2
Excessive Focus and Procrastination	Action	119	30.50	11.93			b.c	
	Adventure	49	23.41	9.32	13.04	<.001	a	.114
	Creativity	86	21.33	9.61			a.d	
	Puzzle	54	26.46	11.61			c	
Withdrawal and Seeking	Action	119	14.79	6.90			b.c.d	
	Adventure	49	11.14	4.92	8.95	<.001	a	.081
	Creativity	86	10.86	5.70			a	
	Puzzle	54	11.30	6.21			a	
Mood Alteration and Immersion	Action	119	12.35	4.49			b.c.d	
	Adventure	49	10.08	3.64	9.84	<.001	a	.089
	Creativity	86	9.26	4.09			a	
	Puzzle	54	10.48	4.23			a	
Total DGAS	Action	119	57.65	22.27			a	.091
	Adventure	49	44.63	16.72	12.07	<.001	a	
	Creativity	86	41.44	18.42			a	
	Puzzle	54	48.24	20.77			b.c.d	
	Action	119	17.66	3.94			d	
	Adventure	49	18.82	2.97	2.71	.045	-	.026

Secure Attachment Style	Creativity	86	18.95	3.81			a	
	Puzzle	54	18.72	3.01			-	
	Action	119	18.53	6.50			b.c.d	
Avoidant Attachment Style	Adventure	49	16.43	5.16	6.59	<.001	a	.061
	Creativity	86	15.15	5.54			a	
	Puzzle	54	15.44	5.81			a	
	Action	119	16.30	4.85			c.d	
Anxious-Ambivalent Attachment Style	Adventure	49	15.67	4.63	3.95	.009	-	.038
	Creativity	86	14.33	5.37			a	
	Puzzle	54	13.85	6.05			a	
	Action	119	29.63	7.30				
Cognitive Reappraisal	Adventure	49	30.71	5.01	0.83	.479	-	.008
	Creativity	86	30.09	9.00				
	Puzzle	54	31.48	7.26				
	Action	119	18.88	5.57			c.d	
Suppression	Adventure	49	17.45	5.39	8.45	<.001	c	.077
	Creativity	86	14.95	5.78			a.b.	
	Puzzle	54	16.24	6.05			a	

Note. Results of the One-Way ANOVA examining differences across Students' Most Frequently Chosen Type of Digital Game in DGAS, TDASS, and ERQ Scale among university students ($n = 314$). M = Mean; SD = Standard Deviation; $F(3, 304)$ = F-statistic with degrees of freedom; p = significance level. Post-hoc indicates significant pairwise comparisons of the Tukey HSD test among Students' Most Frequently Chosen Type of Digital Game groups with no significant differences marked as "--". The symbols a, b, c and d denote the Most Frequently Chosen Type of Digital Game groups Action, Adventure, Creativity and Puzzle, respectively. Effect sizes were calculated using partial Eta squared (η_p^2), offering insight into the magnitude of observed differences.

Table 10 presents the results of the One-Way Analysis of Variance (ANOVA) examining differences in scores across the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation

Questionnaire (ERQ) based on the age at which university students began playing digital games. This analysis demonstrates that the age at which students start playing games has significant effects, particularly on psychological and behavioral characteristics.

A significant difference was found in the Excessive Focus and Procrastination subscale between students who started playing games between the ages of 2-8 and those who started between 8-11 years ($F(3, 304) = 2.91, p = .035$), suggesting that starting to play games at an earlier age might be associated with higher scores indicative of addiction. No significant differences were found in the Withdrawal and Seeking, Mood Alteration and Immersion, Secure Attachment Style, Avoidant Attachment Style, and Cognitive Reappraisal subscales based on the age of starting to play games, indicating that these dimensions might develop independently when game playing began. However, a significant difference was detected in the Anxious-Ambivalent Attachment Style subscale related to the age of starting to play ($F(3, 304) = 2.99, p = .031$), pointing out that beginning to play games at an earlier age might affect students' anxious-ambivalent attachment styles. Particularly, students who started playing games between 11-14 years and those who started after 14 years showed higher scores, which might suggest that starting to play games at a later age could increase tendencies toward anxious and ambivalent attachment styles. No significant difference was found in the Suppression subscale related to the age of starting to play games ($F(3, 304) = 0.41, p = .746$), indicating that emotional expression and regulation strategies might develop independently when game playing began. The total DGAS score did not show significant differences based on the age of onset for playing digital games ($F(3, 304) = 1.71, p = .164$), suggesting that overall digital game addiction may not be strongly influenced by the starting age.

These findings suggest that the age at which students begin playing digital games can have significant impacts, particularly on the risk of digital game addiction and certain social attachment styles. In conclusion, the overall scores reveal that while starting age has some influence on specific subscales like Excessive Focus and Procrastination, and Anxious-Ambivalent Attachment Style, the total scores for DGAS, do not show significant differences based on the age of onset for playing digital games. This indicates that while certain psychological and behavioral characteristics are influenced by the starting age, the overall impact on digital game addiction, and emotion regulation is not substantial.

Table 10. One-Way Analysis of Variance (ANOVA) Results: Variation in DGAS, TDASS, and ERQ Scale Subscales Based on the Age University Students Began Playing Digital Games (n=314)

Subscales	Age of Onset for Playing Digital Games	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i> (3,304)	<i>p</i>	<i>Post-Hoc</i>	η_p^2
Excessive Focus and Procrastination	2-8 years	115	27.55	12.69			c.d	
	8-11 years	86	26.88	11.44	2.91	.035	c.d	.027
	11-14 years	69	23.29	10.47			a.b	
	> 14 years	44	23.39	9.15			a.b	
Withdrawal and Seeking	2-8 years	115	12.69	7.12				
	8-11 years	86	12.66	6.39	0.49	.686		.005
	11-14 years	69	11.59	5.62				
	> 14 years	44	12.23	5.70				
Mood Alteration and Immersion	2-8 years	115	10.83	4.91				
	8-11 years	86	11.22	4.21	1.08	.360		.010
	11-14 years	69	10.16	4.16				
	> 14 years	44	10.07	3.82				
Total DGAS	2-8 years	115	51.07	23.75				
	8-11 years	86	50.76	20.84	1.71	.164		.010
	11-14 years	69	45.04	19.24				
	> 14 years	44	45.68	17.81				
Secure Attachment Style	2-8 years	115	18.08	3.64				
	8-11 years	86	18.43	3.77	1.58	.193		.015
	11-14 years	69	19.20	3.18				
	> 14 years	44	18.05	3.82				
Avoidant Attachment Style	2-8 years	115	17.17	6.95				
	8-11 years	86	16.35	5.86	0.48	.697		.005
	11-14 years	69	16.19	4.82				

	> 14 years	44	16.70	5.79				
	2-8 years	115	14.53	5.59			d	
Anxious-Ambivalent Attachment Style	8-11 years	86	14.71	4.91	2.99	.031		.028
	11-14 years	69	15.91	4.90				
	> 14 years	44	16.95	5.13			a	
	2-8 years	115	30.70	8.10				
Cognitive Reappraisal	8-11 years	86	30.51	7.59	0.71	.541		.007
	11-14 years	69	29.84	6.80				
	> 14 years	44	28.89	6.74				
	2-8 years	115	17.25	6.54				
Suppression	8-11 years	86	17.02	6.16	0.41	.746		.004
	11-14 years	69	16.38	5.04				
	> 14 years	44	17.45	4.91				

Note. Results of the One-Way ANOVA examining differences across Students' Age of Onset for Playing Digital Games in DGAS, TDASS, and ERQ Scale among university students ($n = 314$). M = Mean; SD = Standard Deviation; $F(3, 304)$ = F-statistic with degrees of freedom; p = significance level. Post-Hoc indicates significant pairwise comparisons of Tukey HSD test among Students' Age of Onset for Playing Digital Games groups with no significant differences marked as "--". The symbols a, b, c, and d denote the Age of Onset for Playing Digital Games groups 2-8 years, 8-11 years, 11-14 years and >14 years, respectively. Effect sizes were calculated using partial Eta squared (η_p^2), offering insight into the magnitude of observed differences.

Table 11 contains the results of the One-Way Analysis of Variance (ANOVA) exploring differences in scores across the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ) based on the devices (Phone, Tablet, Computer, Game Console) university students prefer for playing digital games. The analysis indicates significant effects of the preferred device on students' psychological and behavioral characteristics.

In the Excessive Focus and Procrastination subscale, Computer ($F(3, 304) = 41.93$, $p < .001$) and Game Console users scored significantly higher than Phone and Tablet users,

suggesting that computer and game console usage might be associated with higher scores indicative of addiction. A similar trend is observed in the Withdrawal and Seeking ($F(3, 304) = 26.84, p < .001$) and Mood Alteration and Immersion ($F(3, 304) = 26.56, p < .001$) subscales, where Computer and Game Console users achieved higher scores compared to Phone and Tablet users, indicating a stronger impact of computer and game consoles on these characteristics. The total DGAS score also showed significant differences ($F(3, 304) = 38.42, p < .001$), with Computer and Game Console users scoring higher overall. In the Secure Attachment Style subscale ($F(3, 304) = 3.81, p = .010$), Tablet users differed from other device users, although this difference is not as pronounced as in other scales. For the Avoidant Attachment Style ($F(3, 304) = 8.98, p < .001$) and Anxious-Ambivalent Attachment Style ($F(3, 304) = 2.81, p = .040$) subscales, Computer and Game Console users scored higher compared to Phone and Tablet users. Significant differences were observed in the Suppression subscale related to device preference ($F(3, 304) = 9.20, p < .001$), but not in the Cognitive Reappraisal subscale ($F(3, 304) = 1.75, p = .157$).

These results suggest that the devices university students prefer for playing digital games can have significant effects on their psychological and behavioral characteristics. Specifically, the use of computers and game consoles may increase the risk of digital game addiction and problems with certain social attachment styles. In conclusion, the overall scores reveal that students who prefer Computer and Game Console devices tend to have higher total DGAS scores, indicating a greater risk of digital game addiction.

Table 11. One-Way Analysis of Variance (ANOVA) Results: Variation in DGAS, TDASS, and ERQ Scale Subscales Based on the Preferred Gaming Device of University Students (n=314)

Subscales	Preferred Device for Gaming	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i> (3, 304)	<i>p</i>	<i>Post-Hoc</i>	η_p^2
Excessive Focus and Procrastination	Phone	106	19.36	7.87	41.93	<.001	c.d	.289
	Tablet	31	17.26	4.55			c.d	
	Computer	134	30.73	11.93			a.b	
	Console	43	32.81	9.27			a.b	

Withdrawal and Seeking	Phone	106	9.45	4.84			c.d	
	Tablet	31	8.13	2.38	26.84	<.001	c.d	.206
	Computer	134	14.48	6.72			a.b	
	Console	43	16.09	6.13			a.b	
Mood Alteration and Immersion	Phone	106	8.62	3.78			c.d	
	Tablet	31	7.90	3.52	26.56	.001	c.d	.204
	Computer	134	12.15	4.28			a.b	
	Console	43	13.21	3.67			a.b	
Total DGAS	Phone	106	37.43	15.35			c.d	
	Tablet	31	33.29	8.56	38.42	<.001	c.d	.221
	Computer	134	57.36	21.88			a.b	
	Console	43	62.12	17.72			a.b	
Secure Attachment Style	Phone	106	18.93	3.43				
	Tablet	31	19.58	4.06	3.81	.010	d	.036
	Computer	134	18.13	3.35				
	Console	43	17.19	4.17			b	
Avoidant Attachment Style	Phone	106	14.87	4.81			c.d	
	Tablet	31	14.29	5.31	8.98	<.001	c.d	.080
	Computer	134	18.01	6.69			a.b	
	Console	43	18.60	5.69			a.b	
Anxious-Ambivalent Attachment Style	Phone	106	14.19	5.01			c	
	Tablet	31	14.52	6.28	2.81	.040		.026
	Computer	134	16.01	5.06			a	
	Console	43	15.81	5.26				
Cognitive Reappraisal	Phone	106	30.39	8.46				
	Tablet	31	32.90	6.62	1.75	.157	-	.017
	Computer	134	29.69	7.14				
	Console	43	29.40	6.34				

	Phone	106	15.09	6.06			c.d	
Suppression	Tablet	31	15.26	5.53	9.20	<.001	c.d	.082
	Computer	134	18.68	5.51			a.b	
	Console	43	17.91	5.34			a.b	

Note. Results of the One-Way ANOVA examining differences across Students' Preferred Device for Gaming in DGAS, TDASS, and ERQ Scale among university students ($n = 314$). M = Mean; SD = Standard Deviation; $F(3, 304)$ = F-statistic with degrees of freedom; p = significance level. Post-hoc indicates significant pairwise comparisons of the Tukey HSD test among Students' Preferred Device for Gaming groups with no significant differences marked as "--". The symbols a, b, c, and d denote the Preferred Device for Gaming groups Phone, Tablet, Computer, and Console, respectively. Effect sizes were calculated using partial Eta squared (η_p^2), offering insight into the magnitude of observed differences.

The Pearson Correlation Analysis results in Table 12 examine the relationships between the subscales of the Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ). The analysis reveals a very high correlation between Excessive Focus and Procrastination and Withdrawal and Seeking ($r = .89, p < .001$), indicating these dimensions are strongly related and an increase in one could lead to an increase in the other. Similarly, high correlations were found between Mood Alteration and Immersion and both Excessive Focus and Procrastination ($r = .82, p < .001$) and Withdrawal and Seeking ($r = .79, p < .001$), suggesting a tight relationship between these dimensions.

Secure Attachment Style shows a negative correlation with Excessive Focus and Procrastination ($r = -.24, p < .001$) and Withdrawal and Seeking ($r = -.28, p < .001$), indicating a reverse relationship with digital game addiction indicators. Avoidant Attachment Style and Anxious-Ambivalent Attachment Style exhibit positive significant relationships with characteristics related to digital game addiction; notably, Avoidant Attachment Style shows a positive correlation with Withdrawal and Seeking ($r = .57, p < .001$), and Anxious-Ambivalent Attachment Style shows a positive correlation with the same characteristic ($r = .41, p < .001$). A positive relationship exists between Cognitive Reappraisal and Secure Attachment Style ($r = .30, p < .001$), while no significant relationship is observed with other subscales. Suppression shows a positive and significant relationship, especially with Excessive Focus and Procrastination ($r = .40, p < .001$). This indicates that higher overall

digital game addiction is associated with higher levels of attachment-related issues and emotion regulation difficulties

These results indicate that the strong positive correlation between Excessive Focus and Procrastination, and Withdrawal and Seeking underscores the close relationship between indicators of digital game addiction. This relationship highlights the broad impact of digital games' addictive effects on individual behavior and experiences. Moreover, the negative relationship between secure attachment style and digital game addiction indicators suggests that healthy social relationships and secure attachment could reduce addiction tendencies. On the other hand, positive correlations between avoidant and anxious-ambivalent attachment styles with digital game addiction indicators suggest these attachment styles could be psychological factors increasing addiction risk. Finally, overall results suggest a significant interplay between digital game addiction, attachment styles, and emotion regulation strategies. The strong positive correlation between total DGAS and insecure attachment styles indicates that increasing game addiction is associated with increased attachment issues. Similarly, the positive correlation between total DGAS scores and negative emotion regulation subscales emphasizes that increased game addiction is related to greater emotion regulation difficulties.

Table 12. Pearson Correlation Analysis Results: Relationships Between University Students' Digital Game Addiction Scale (DGAS), Three-Dimensional Attachment Styles Scale (TDASS), and Emotion Regulation Questionnaire (ERQ) Subscales (n=314)

Subscales	1	2	3	4	5	6	7	8	9	10	11
1. Excessive Focus and Procrastination	1.00										
2. Withdrawal and Seeking	.89**	1.00									
3. Mood Alteration and Immersion	.82**	.79**	1.00								
4.Total DGAS	.98**	.94**	.89**	1							

5.Secure Attachment Style	-.24**	-.28**	-.12*	-.24**	1.00					
6.Avoidant Attachment Style	.51**	.57**	.43**	.53**	-.20**	1.00				
7.Anxious-Ambivalent Attachment Style	.36**	.41**	.31**	.38**	-.15**	.56**	1.00			
8.Cognitive Reappraisal	.01	-.02	.10	.01	.30**	-.08	-.21**	.05	1.00	
9. Suppression	.40**	.36**	.40**	.41**	-.11	.33**	.37**	.36**	.28**	1.00

* $p < .05$. ** $p < .01$. *** $p < .001$

CHAPTER V

DISCUSSION

In this section of the thesis, the findings obtained throughout the research are examined, discussed, and interpreted after a literature review. The findings are enriched with information from the psychology literature on digital game addiction, attachment styles, and emotion regulation levels. The literature review revealed no studies that simultaneously examined the relationships between digital game addiction, attachment styles, and emotion regulation levels among university students. In this context, the aim of this research is to examine the relationship between digital game addiction, attachment styles, and emotion regulation levels among university students. The relationship between the dependent variables (digital game addiction, attachment styles, and emotion regulation levels) and socio-demographic variables (gender, age, parental marital status, etc.) is examined, and it is assessed whether there are significant differences among various socio-demographic variables.

The research found that the gender factor has a significant differences on university students' digital game addiction, attachment styles, and emotion regulation levels. Based on these findings, it was determined that male students are more prone to digital game addiction and have more intense experiences in this field. In a study conducted by Bilge et al. (2018), which examined pathological internet and game use among university students, it was found that male students have higher average scores of pathological internet and game addiction compared to female students, supporting the findings of this research. Similarly, a study conducted by Lin and colleagues in Taiwan in 2011 found that being male is a risk factor for game addiction (Lin et al., 2011). These similar results in the literature indicate that male students are more prone to game addiction compared to female students, who are more able to engage themselves socially and have stronger interpersonal relationships, hence spending less time on digital games.

When examining the relationship between gender and attachment styles in the research, it was found that female students have higher secure attachment style scores compared to male students. When the attachment styles are compared with the gender

variable, Erözkan (2011), in a study examining the attachment styles and decision strategies of university students, found that male students have a more secure attachment style compared to female students, while female students have a more fearful attachment style compared to male students. Another study conducted by Leondari and Kiosseoglou (2000) also found a significant difference favoring males. The discrepancy between the findings of this study and those in the literature can be explained by differences in child-rearing practices, behavior patterns attributed to gender roles, socio-cultural life, and the potential for individuals to develop different attachment styles across genders.

When examining emotion regulation scores based on students' gender, it was found that females have significantly higher positive emotion regulation scores compared to males. Ataman and Dağ (2014), study examining students' emotion regulation scores based on gender, it was found that males have significantly higher positive emotion regulation scores compared to females. Additionally, a study conducted with adolescents Kayhan (2017) also found that females have higher emotion regulation difficulty scores. The similarity of the results from various studies with this research can be explained by the historical presence of a patriarchal regime, where males were dominant, and females were hindered in expressing their emotions openly. In contrast, today we live in an environment where women have become financially and emotionally empowered, have increased social interactions, and consequently have stronger skills in expressing their emotions. The growing prevalence of mindfulness-based approaches, the increased participation of women in the workforce and social life, and the abundance of personal development opportunities may suggest that women's emotion regulation skills have improved in recent studies.

The study examined the effects of age on digital game addiction, attachment styles, and emotion regulation levels. Based on the findings, it was determined that as university students age, the symptoms related to susceptibility to digital game addiction may increase. A review of the literature revealed that a study by Kneer and colleagues (2014) found age to be a significant factor in digital game playing. Similarly, a Delebe and Hazar (2022) study with middle school students showed that the rate of digital game playing varies according to age levels. These differences could be due to older children being able to act more independently from their parents, spending more time on digital games, viewing digital games as a socialization tool for those who cannot socialize, parental neglect, or increased loneliness as individuals distance themselves from family.

In the study, when examining the differences in age on attachment styles, it was found that while there is a negative relationship between age and the secure attachment sub-dimension, the difference was not statistically significant. Thus, it appears that the age factor does not have any effect on attachment styles. According to the literature, a study conducted by Schachner et al. (2008) investigated the relationship between attachment anxiety and age. It was found that younger individuals felt more liberated in terms of attachment, whereas middle-aged individuals experienced anxiety about future relationships. Additionally, a study conducted by Majidova and İpek (2020) study investigated attachment styles and marital attitudes found no differences in secure, fearful, and dismissive attachment style scores with respect to age. The relationship experiences, work relationships, and trust issues that individuals encounter throughout their lives can yield different results in various studies. However, other studies in the literature show similar results to those found in this research.

In the study, when examining the differences in age on emotion regulation levels, it was found that age does not have a significant effect on emotion regulation levels. According to the literature, Çelik and Kocabıyık (2014) study revealed that the use of emotion regulation strategies increases with age. Considering this difference, although it can be said that as people age, they tend to think more positively, view life events more positively, and find goodness in adverse situations, it is also anticipated that life events affecting society, such as COVID-19, earthquakes, and fires, can influence individuals' emotion regulation abilities (Küçükvardar & Türel, 2022).

In the study, the differences in parental marital status on digital game addiction, attachment styles, and emotion regulation levels were examined, revealing differences between students with separated parents and those with parents who are together. It was found that students with separated parents are more likely to develop digital game addiction. Literature shows the results; Göymen (2019) study on high school students found no significant relationship between parental marital status and game addiction, whereas Ort (2022) study on university students indicated that children of divorced or separated parents experience higher behavioural and emotional problems, including game addiction. The variation among studies can be explained by the application of demographic variables to different age groups. While adolescents may still have parental control even if their families

are separated, university students may find themselves beyond parental control as they are away from their families.

When examining the difference in parental marital status on attachment styles in the study, no significant difference was found in the secure and anxious/ambivalent attachment style sub-dimensions in terms of the parental marital status factor. However, it was observed that students with divorced parents scored higher in the avoidant attachment style sub-dimension compared to those with parents who were together. In a study conducted by Jacobson (2020) with young adults investigating whether parental marital status affects the romantic relationships of young adults, it was observed that young people with divorced parents generally have an insecure attachment style and experience uncertainty in relationships. Another study conducted by Schindler et al (2010), found that the children of securely attached individuals were largely married and living in intact families. Similar to this study, research in the literature shows that parental marital status affects insecure attachment styles. However, the reason for the lack of differences in other sub-dimensions of attachment style could be the age level of the participants and the fact that they are living away from their families (Majidova & İpek, 2020).

In the study examining the difference of parental marital status on emotion regulation levels, it was found that students with divorced parents scored higher on cognitive reappraisal and suppression subscales compared to those with married parents. Another study conducted by Ülkümen (2021) indicated no differences in emotion regulation difficulty scores based on whether parents were together or separated. Similarly, Sarıca and Tagay (2019) study found no effect of parental marital status on emotion regulation scores. These discrepancies highlight the limited literature on this topic, suggesting the need for future research to explore these variables in depth.

In the study examining the relationship between daily digital game playing time and digital game addiction, attachment styles, and emotion regulation levels, it was found that as students' daily digital game playing time increased, their scores related to digital game addiction also increased. Similar findings were observed in the literature, by Frölich et al (2016) where there were significant differences in addiction levels based on students' daily computer game playing times. In another study conducted by Marufoğlu and Kutlutürk (2021), it was observed that students who played games for 3 hours or more daily had high levels of addiction. The findings in the literature that show similar results can be explained

by the fact that addiction is directly proportional to the time spent. When we think of addiction, excessive use, behaviors driven by impulses, and uncontrollable psychological and physical actions come to mind. Game playing time is already one of the indicators of game addiction (Şimşek et al., 2020).

In the study examining the relationship between daily digital game playing time and attachment styles, it was found that as daily game playing time increased, secure attachment subscale scores decreased, while anxious and avoidant attachment subscale scores increased. In the literature, a study conducted by Musluoğlu (2016) examining the relationship between students' attachment styles and internet and digital game addiction found that young people who spent 5 hours or more on digital games had higher scores on anxious and avoidant attachment subscales. Another study conducted by Lenhart et al (2015) revealed that 72% of young people played digital games with their friends for hours every day and formed friendships with the people they played with. This indicates that relationships based on trust are limited. The similarity of the findings in these studies can be explained by the decrease in social interaction due to significant events such as COVID-19 and earthquakes, regardless of age, and the continued prevalence of digital games among young people, leading to the formation of friendships within digital games (Aktaş & Bostancı, 2021).

As daily digital gaming time increases in the study, decreases in the subdimensions of emotion regulation levels have been observed. Based on these findings, it can be inferred that students who engage in long-term gaming experience negative impacts on their emotion regulation skills. In a study conducted by Güzel and Ergün (2020) investigating factors associated with depression frequency among university students, weaknesses in emotion regulation skills are particularly observed in students who engage in gaming for prolonged periods. In another study conducted abroad by Ahmet et al (2022), participants who spent 1-2 hours playing digital games had higher levels of emotion regulation, while those spending more than 6 hours scored lower. Drawing from similar research results, there is a higher likelihood of encountering mental health problems such as depression and anxiety in young individuals with prolonged gaming behaviors that hinder their ability to manage and control their emotional responses. If social activities and activities that enhance interpersonal relationships are introduced instead of spending time on digital games, individuals' emotion regulation processes can also improve (Şahan, 2022).

In the study examining the relationship between digital game types and digital game addiction, attachment styles, and emotion regulation levels, it was found that students who prefer action game types have higher scores in digital game addiction compared to those who prefer other game types. This result can be associated with the fact that students who prefer action games exhibit more signs of digital game addiction. A similar study conducted by Küçükvardar and Türel (2022), during the Covid-19 pandemic in 2022 on digital games found that action games were among the most played games. Another study by Yılmaz et al (2022) revealed that players of the action game PUBG have higher digital game addiction levels compared to players of other game types. A study conducted abroad in 2015 also observed that the action game genre was the most played game type and increased the risk of addiction. Our research aligns with the literature, suggesting that the popularity of action games among young individuals can be attributed to advanced technology making game effects more realistic and the excitement these games offer in contrast to ordinary daily life (Barut, 2019).

In the study examining the relationship between digital game types and attachment styles, it was found that students who prefer action and adventure games scored higher in the subdimensions of avoidant attachment style and anxious/ambivalent attachment style compared to students who prefer creativity and mind-puzzle games. This suggests that action and adventure games may impact students' insecure attachment styles. Although there is no existing research in the literature that specifically examines the relationship between these two variables, a study conducted by Yıldız (2019) on the relationship between personality traits and digital game types, while not directly equivalent to our research, is considered to provide insights. The findings indicated a significant relationship between the personality trait of neuroticism and action-adventure games. Neurotic individuals are considered to be tense, irritable, and vulnerable, and it has been observed that they have higher levels of game addiction. It is also thought that having neurotic traits may stem from an insecure attachment style (Horney, 2017). Additionally, in Borders (2012) study that showed individuals prefer game types based on their personality traits, it was found that players who prefer action games have high neuroticism and low agreeableness scores, while those who prefer horror survival games have high neuroticism and low openness to experience. Based on this information, game type preferences can be related to individuals' gaming experiences,

awareness of different games, their own personality traits and experiences, and attachment styles. Increasing the number of studies on these two variables will assist researchers.

In the study examining the relationship between game type and emotion regulation levels, it was found that students who prefer action games scored higher in the suppression subdimension of emotion regulation, while no significant differences were observed in the cognitive reappraisal subdimension across different game types. In research conducted by Choi et al (2018) on university students, it was found that those experiencing negative emotions had higher game addiction scores, whereas those with positive emotions had lower scores. Players who prefer games in the action category reported that these games provided them with 'excitement, enjoyment, and happiness,' and they felt driven to succeed, often wanting to play for hours. Consequently, it was determined that the action and violence in these games could lead to aggressive behaviors in individuals. Additionally, individuals have indicated that they turn to such games to reduce their negative emotions. While there is a consensus that more research is needed in this area, it is generally believed that players choose action games to escape the monotony of the outside world, to repeatedly experience a sense of achievement, and to feel a variety of emotions within the game. This preference is thought to be because they struggle to regulate the emotions they face in real-life experiences. Specifically, action games are often considered the first choice for those seeking intense emotional experiences (Barut, 2019).

When examining the relationship between the age of onset for playing digital games, digital game addiction, attachment styles, and emotion regulation levels in the study, no significant difference was found between digital game addiction and the age of onset for playing digital games. This suggests that game addiction may develop independently of the age at which gaming begins. A study conducted by Bülbül and Tunç (2018) examined the relationship between the age of starting to play digital games and the age of starting to use a phone with digital game addiction. It was found that young people who started playing games and using phones at an early age are more likely to become game addicts. Another study conducted by Greitemeyer (2022) examined the relationship between violent video games and social behavior, concluding that the age at which individuals start playing digital games plays a significant role in digital game addiction. The difference between the literature and this study can be explained by various factors such as supervised parental control even if children are introduced to digital games at an early age, changes in the types of games

children play, and the child's self-regulation skills. Therefore, the age of onset for playing digital games alone cannot determine digital game addiction. A child who spends time with digital games in a balanced manner can benefit from their educational aspects (Cop & Kablan, 2018).

In the study, when examining the relationship between the onset of digital game playing and attachment styles, significant differences were found between the sub-dimension of anxious-ambivalent attachment style and the age of starting to play games. Based on these findings, it was concluded that starting to play games at an early age might have effects on individuals' anxious-ambivalent attachment styles. It is particularly predicted that starting to play games between the ages of 11-14 and at ages older than 14 might increase tendencies towards anxious-ambivalent attachment. It has been noted that there are no studies in the literature investigating the relationship between these two variables. Considering that attachment forms from the moment we are born and continues to shape throughout life, increasing research in this area would contribute to the literature.

In the study, no significant difference was found between the age of starting to play digital games and emotion regulation subdimensions. Research indicates that parents believe digital games have a calming effect on their children (Mustafaoğlu & Yasacı, 2018). However, some studies in the literature contain criticisms suggesting that this is a numbing condition rather than a calming one (Greitemeyer, 2022). A study conducted with preschool children found that digital game addiction negatively affects children's emotional intelligence (Ünsal, 2019). In the literature, no study has been found that examines the relationship between the age of starting digital games and levels of emotion regulation, suggesting that emotion regulation skills may develop independently of the age at which one starts playing games.

The study examined the relationship between the devices preferred for playing digital games (phone, tablet, computer, game console) and digital game addiction, attachment styles, and emotion regulation levels. It was found that the use of computers and game consoles resulted in higher scores in digital game addiction. This indicates that young people who use computers and game consoles are more likely to develop addiction compared to those who use phones and tablets. Additionally, a study from the literature, by Öztekin et al (2021) which investigated university students' digital game addiction levels during the COVID-19 pandemic, found that the highest addiction levels were observed among tablet

and computer users. A study conducted by Mustafaoğlu and Yasacı (2018) also observed that tablet users had higher addiction rates (Mustafaoğlu & Yasacı, 2018). According to another study conducted by Akbaba and Çetinkaya (2024), university students who play games on computers and tablets have higher addiction scores compared to those who play games on phones and game consoles. The difference between the findings of this study and those in the literature can be attributed to the socio-economic levels of the relevant populations and the devices on which popular games were played during the respective periods. The finding that computer users have an increased likelihood of game addiction is consistent with the literature. The widespread availability of computers in households makes this finding common.

The study found that users of computers and game consoles scored higher on the anxious-ambivalent and avoidant attachment subscales when examining the relationship between the device used for playing digital games and attachment styles. A study conducted by Elias et al (2020) found that parents, during their intense phone usage, tended to ignore their children's needs, leaving their children's needs for security and care unmet. It was observed that these children, feeling frustrated, either avoided communication with their parents or engaged in risky behaviors. Another study conducted by Stockdale et al (2018) found no relationship between adolescent technofence and perceived parental warmth, but it was associated with cyberbullying, anxiety, depression, and negative behaviors. In the literature, there are no studies examining the relationship between the device used for playing digital games and attachment styles. Instead, research has focused on the different effects of intensive technological device usage. It is believed that regardless of age, technological devices create distance in interpersonal communication and pose challenges in building trust relationships.

The study examined the relationship between the device used for playing digital games and emotion regulation levels. It was observed that especially computer and game console users showed a significant difference in the suppression sub-dimension. According to the literature, problematic mobile phone use causes emotional and behavioral problems in individuals, which can lead to socio-emotional problems (Sundqvist et al., 2020). Research in the literature suggests that extensive phone usage can contribute to challenges in emotion regulation (Süler, 2016). No research has been found in the literature directly addressing these two variables, indicating that this issue has been considered more broadly. It has been

observed that the devices chosen for gaming often vary depending on the type of game. Typically, games played on phones and tablets are shorter and have the ability to be resumed from where they were left off, while games played on computers and consoles tend to be longer in duration. Accordingly, based on the study's findings, it is possible that the longer and more complex games played on computers and consoles lead players to use suppression strategies in response to ongoing negative emotions. This gap in the literature can be explained by the fact that the types of games played by the relevant population may vary according to individual needs.

The analysis examined the relationship between the sub-dimensions of the digital game addiction scale, attachment styles scale, and emotion regulation questionnaire. It was found that the secure attachment style is negatively correlated with digital game addiction, whereas avoidant and anxious-ambivalent attachment styles have a significant positive relationship with the features related to digital game addiction. This indicates that a secure attachment style is inversely related to digital game addiction symptoms, suggesting that secure attachment styles may have an effect in reducing the risk of addiction. In contrast, avoidant and anxious-ambivalent attachment styles may increase the risk of digital addiction. In the literature, studies examining the relationship between attachment styles and digital game addiction show that Lin et al (2011) study found a positive relationship between anxious-ambivalent and avoidant attachment styles and game addiction. Similarly, a study conducted by Odacı and Çıkrıkçı (2014) also found a positive correlation between anxious-ambivalent and avoidant attachment styles and game addiction among its findings. A study conducted by Monacis et al (2017) also supports our findings by showing a positive relationship between game addiction and anxious and avoidant attachment orientations. In the literature, there are also findings contrary to ours that indicate no relationship between avoidant attachment style and game addiction (Güntay, 2021). The differences in findings could be due to factors such as the scales used in the research, the region where the study was conducted, the characteristics of the sample group, etc. Generally speaking the reason for the relationship between digital game addiction and attachment styles can be explained by the fact that anxious-ambivalent and avoidant attachment styles are among insecure attachment styles. Individuals with these styles tend to avoid close relationships, have weaker social skills, and prefer virtual environments over interpersonal relationships. This result shows that secure attachment significantly reduces digital game addiction, while

insecure attachment increases it, which is consistent with the findings of other studies in the literature.

When looking at the relationship between emotion regulation and attachment styles, a positive correlation was found between the emotion regulation sub-dimension of cognitive reappraisal and the attachment style sub-dimension of secure attachment, while no significant relationship was found between the other sub-dimensions. A review of the literature reveals that a study conducted by Vatan and Oruçlular-Kahya (2018) examining insecure attachment styles and emotion regulation found that anxious and avoidant attachment styles have a significant relationship with emotion regulation skills. In a study by Uyar (2019), a negative relationship was found between fearful attachment and obsessive attachment and positive cognitive emotion regulation strategies, while a positive significant relationship was found with negative cognitive emotion regulation strategies. In a study conducted by Kısmetoğlu (2019), it was found that there is a positive relationship between anxious attachment and dysfunctional emotion regulation skills. Rugancı (2008) similarly stated in her study that there are significant relationships between dysfunctional emotion regulation strategies and insecure attachment styles, in line with the findings of the literature. Karabacak and Demir (2017) revealed in their study that there is a positive relationship between the avoidant attachment style and suppression, which is a sub-dimension of emotion regulation. Consistent with the literature, secure attachment styles are associated with positive emotion regulation strategies. When individuals are able to trust, communicate socially, and make sense of themselves, they can cope more easily with their difficulties. They can use emotion regulation strategies when faced with a negative situation. The literature also includes studies examining the relationships between insecure attachment and emotion regulation. In this study, the reason why no relationship was found between the other sub-dimensions could be attributed to the population in which the research was conducted.

In the study, when examining the relationship between digital game addiction and emotion regulation, a positive significant relationship was found between digital game addiction and the suppression sub-dimension of emotion regulation. According to the literature, Güntay's (2021) study found a positive relationship between game addiction and the suppression sub-dimension. A study conducted by Amendola et al (2019) indicated that individuals with emotion regulation difficulties are at high risk for gaming addiction and

problematic technology use. Another study conducted by Lui and Ma (2019) showed that individuals play games to cope with negative emotions and that there is a relationship between emotion regulation disorders and behavioral addictions such as problematic internet use. A study conducted by Yen et al (2018) study showed that gamers with game addiction suppress their emotions more and use cognitive emotion regulation strategies less compared to gamers without game addiction. Additionally, it has been observed that young people who play online games are prone to emotional problems such as anger outbursts, and behavioral issues such as aggressive tendencies (Choi et al., 2018). Individuals who experience difficulties in emotional regulation are more prone to behavioral addictions such as gambling, internet use, and gaming, leading to an increase in addiction levels (Budak, 2017). The similarity between research findings and those in the literature can be explained by young people directing themselves towards digital gaming to cope with the negative emotions they experience, along with the types of games they play.

5.1. CONCLUSION

1. According to the findings of the research regarding gender demographic variable, a significant difference was found between digital game addiction and gender variable. However, it was concluded that male students tend to have higher scores in digital game addiction, indicating that male students are more prone to digital game addiction.
2. According to the findings of the research regarding gender demographic variable, a significant difference was found between attachment styles and gender variable. It was observed that female students have higher scores in the sub-dimensions of attachment styles, specifically in secure attachment style, while male students have higher scores in the avoidant attachment style and anxious-ambivalent attachment style sub-dimensions.
3. According to the findings of the research regarding gender demographic variable, a significant difference was found between emotion regulation and gender variable. Cognitive reappraisal scores were higher for females, whereas suppression scores were higher for males.
4. According to the findings of the research regarding age demographic variable, there is a positive correlation between digital game addiction and age variable. It is observed that as students' age increases, the scores of digital game addiction also increase.
5. According to the findings of the research regarding age demographic variable, while there is no significant relationship between attachment styles and age variable, there is no relationship between students' age and attachment styles.
6. According to the findings of the research regarding age demographic variable, while there is no significant relationship between emotion regulation and age variable, there is no relationship between students' age and emotion regulation.
7. According to the findings of the research regarding parental marital status demographic variable, a significant difference was found between digital game addiction and parental marital status variable. However, it was found that students with separated parents have higher scores in digital game addiction compared to those with parents living together.

8. According to the findings of the research regarding parental marital status demographic variable, a significant difference was found between attachment styles and parental marital status variable. It was found that students with separated parents have higher scores in the avoidant attachment style sub-dimension compared to those with parents living together.

9. According to the findings of the research regarding parental marital status demographic variable, a significant difference was found between emotion regulation and parental marital status variable. It was found that students with separated parents have higher scores in the cognitive reappraisal and suppression sub-dimensions of emotion regulation compared to those with parents living together.

10. According to the findings of the research regarding daily digital gaming duration demographic variable, a significant difference was found between digital game addiction and daily digital gaming duration variable. It is found that as students' daily average gaming duration increases, the risks of digital game addiction also increase.

11. According to the findings of the research regarding daily digital gaming duration demographic variable, a significant difference was found between attachment styles and daily digital gaming duration variable. It is found that as students' daily average gaming duration increases, secure attachment scores decrease while anxious and avoidant attachment scores increase.

12. According to the findings of the research regarding daily digital gaming duration demographic variable, a significant difference was found between emotion regulation and daily digital gaming duration variable. It is found that as students' daily average gaming duration increases, suppression scores in emotion regulation also increase.

13. According to the findings on the demographic variable of game type in the study, a significant difference was found between digital game addiction and the game type variable, with students who prefer action games scoring high in digital game addiction.

14. According to the findings of the research regarding preferred device type for gaming demographic variable, a significant difference was found between attachment styles and preferred device type for gaming variable. It is observed that users preferring action and adventure games have higher scores in the avoidant and anxious-ambivalent attachment styles sub-dimensions compared to those preferring creativity and intellect games.

15. According to the findings of the research regarding preferred device type for gaming demographic variable, a significant difference was found between emotion regulation and preferred device type for gaming variable. It is observed that users preferring action games have higher suppression scores in the emotion regulation sub-dimensions.

16. According to the findings on the demographic variable of the age of onset for playing digital games in the study, no significant difference was found between digital game addiction and the age of onset for playing digital games. It is thought that digital game addiction develops independently of this variable.

17. According to the findings of the research regarding age of starting digital gaming demographic variable, while there is no significant difference between attachment styles and age of starting digital gaming variable in secure attachment and avoidant attachment style sub-dimensions, it is found that starting gaming late increases anxious-ambivalent attachment tendencies.

18. According to the findings of the research regarding age of starting digital gaming demographic variable, there is no significant difference between emotion regulation and age of starting digital gaming variable. It indicates that emotion regulation develops independently of this variable.

19. According to the findings of the research regarding preferred device type for gaming demographic variable, a significant difference was found between digital game addiction and preferred device type for gaming variable. It is observed that computer and game console users have higher scores in digital game addiction compared to those using phones and tablets.

20. According to the findings of the research regarding preferred device type for gaming demographic variable, a significant difference was found between attachment styles and preferred device type for gaming variable. It is observed that users preferring action and adventure games have higher scores in the avoidant and anxious-ambivalent attachment styles sub-dimensions compared to those preferring creativity and intellect games.

21. According to the findings of the research regarding preferred device type for gaming demographic variable, a significant difference was found between emotion regulation and preferred device type for gaming variable.

22. When examining the relationship between digital game addiction and attachment styles, a negative correlation was found between secure attachment and digital game addiction, while a positive relationship was found between avoidant and anxious-ambivalent attachment styles and digital game addiction.

23. When examining the relationship between attachment styles and emotion regulation, a positive relationship was found between cognitive reappraisal and secure attachment, while no relationship was found between other sub-domains.

24. When examining the relationship between digital game addiction and emotion regulation, a positive relationship was found between suppression in emotion regulation and digital game addiction.

5.2. SUGGESTION

5.2.1. Suggestions Related to the Academic Studies

To inspire future research in this field, the following recommendations are provided;

- In addition to the demographic information and variables used in this study, incorporating different variables into future studies could provide a more heterogeneous distribution and contribute to the literature by enabling better data analysis.
- Reassessing the relevant variables used in this research with different measurement tools would be beneficial for future studies.
- Addressing the same topic with different and broader age groups in related research will help raise awareness about the subject. Additionally, there is a need for studies conducted at different educational levels and among various professional groups.
- Due to the scarcity of studies in this field and the fact that our research was conducted with a non-clinical sample group, it is suggested that future research should include studies that combine clinical and non-clinical sample groups.
- Evaluating the variable of digital game addiction in the young adult population not only in relation to attachment styles and emotion regulation but also with more comprehensive variables such as psychological well-being, career, levels of hope, and life satisfaction, through both quantitative and qualitative research, will contribute to the literature.

5.2.2. Suggestions Related to the Practice

- Specialists and teachers working in this field can help reduce the risk of addiction by creating awareness among young people about digital game addiction through education, seminars, and similar activities.
- Directing students towards social activities such as sports and arts and allocating budgets for these activities by schools or municipalities, can enable young people to have easier access to social events.
- Spending time with children, understanding them, and building a trustful relationship within the family from an early age can prevent some social attachment problems.

Additionally, giving responsibilities to children and fostering their internal motivation can help prevent game addiction.

- Organizing emotional awareness training, seminars, and similar events to help individuals develop emotion regulation skills is believed to assist students in becoming aware of their emotions and consequently learning how to regulate them.
- To increase students' accessibility to therapy in cases of game addiction, attachment problems, or emotion regulation difficulties, it would be beneficial for university guidance and psychological counselling departments to enhance their therapy support.



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APPENDICES

Appendix 1: Demographic Information Form

Sayın Katılımcı;

Bu form bilimsel bir araştırma kapsamında veri toplamak amacıyla araştırmacı tarafından hazırlanmıştır. Elde edilecek bilgiler tamamen bilimsel amaçlı kullanılacaktır. Ankette isim belirtmenize gerek yoktur. Verilen yanıtlar üçüncü kişilerle, kurum ve kuruluşlarla paylaşılmayacak gizli tutulacaktır. Her bir cümleyi okuduktan sonra size en uygun gelen yanıtı (X) koyarak işaretleyiniz. Verdiğiniz yanıtlar bizim için çok kıymetlidir. Zaman ayırarak çalışmamıza katıldığınız için teşekkür ederiz.

Özlem ŞARLIOĞLU

Rehberlik ve Psikolojik Danışmanlık Yüksek Lisans Öğrencisi

1. Cinsiyetiniz:

☐ Kadın

☐ Erkek

2. Yaşınız :

☐

3. Anne- Baba Ayrı/Beraber mi?

☐ Ayrı

☐ Beraber

4. Günlük ortalama dijital oyunlara ne kadar süre harcıyorsunuz?

☐ 0-3 Saat

☐ 3-5 Saat

☐ 5-7 Saat

☐ 7-9 Saat

☐ 9 saat ve Üzeri

5. En sık oynadığınız dijital oyun türleri hangileridir?

- ☐ Macera Oyunları
- ☐ Aksiyon Oyunları
- ☐ Yaratıcılık Oyunları
- ☐ Diğer

6. Dijital Oyun oynamaya kaç yaşında başladınız?

- ☐ 2-5 Yaş arasında
- ☐ 5-8 Yaş arasında
- ☐ 8-11 Yaş arasında
- ☐ 11-14 Yaş arasında
- ☐ 14-17 Yaş arasında
- ☐ 17-19 Yaş arasında
- ☐ 19 yaş ve üzerinde

7. Oyun oynamak için en çok hangi cihazı tercih edersiniz?

- ☐ Tablet
- ☐ Bilgisayar
- ☐ Telefon
- ☐ Playstation
- ☐ Diğer

Appendix 2: Digital Game Addiction Scale for University Students (DGAS)

DİJİTAL OYUN OYNAMA ALIŞKANLIKLARI: Her bir maddeyi okuyarak size uygun gelen seçeneği (X) ile işaretleyiniz. **Lütfen tüm soruları eksiksiz cevaplayınız.**

Madde No		Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1	Dijital oyunlar hayatımın olmazsa olmaz bir parçasıdır (benim için çok önemlidir)					
2	Dijital oyunun olmadığı bir hayat bana sıkıcı gelir					
3	Dijital oyunun olmadığı bir hayat bana anlamsız gelir					
4	Sabah uyandığımda aklıma gelen ilk şey dijital oyun oynamak olur					
5	Bilgisayar, telefon, tablet ve konsol gibi dijital oyun araçlarından uzak kalmayı istemem					
6	Okula gitmek yerine dijital oyun oynamayı tercih ederim					
7	Başkaları ile yüz yüze sohbet etmek yerine dijital oyun oynamayı tercih ederim					
8	Dijital oyun oynarken tuvalet ihtiyacımı ertelediğim zamanlar olur					
9	Dijital oyun oynadığım için başka türlü eğlenceli aktivitelere (spor, müzik gibi) zamanım kalmaz					
10	Dijital oyun oynamak için derslerimi aksattığım zamanlar olur					
11	Okul dışındaki vaktimin çoğunu dijital oyun oynayarak geçiririm					
12	İstediğim zaman dijital oyun oynayamazsam sinirlenirim/öfkelenirim					
13	Dijital oyun oynamadığım zaman iştahım kaçar					
14	Dijital oyun oynamadığım zaman kendimi huzursuz hissedirim					
15	Sınıfta ders esnasında dijital oyun oynamayı hayal ederim					
16	Ev dışında herhangi bir yere gittiğimde dijital oyun oynayabileceğim bir araç (bilgisayar, telefon, tablet, konsol vb.) var mı diye etrafa bakınırım					
17	Bilgisayar, cep telefonu, tablet gibi teknolojik araçları gördüğümde aklıma gelen ilk şey dijital oyun oynamak olur					
18	Mutsuz olduğum zamanlarda dijital oyun oynamak beni rahatlatır					
19	Her defasında daha uzun süre dijital oyun oynamak isterim					
20	Dijital oyun oynarken acıktığının farkına varmam					
21	Gün içerisinde birden bire/aniden dijital oyun oynamayı istediğim zamanlar olur					

Appendix 3: Three-Dimensional Attachment Styles Scale (TDASS)

EK: Üç Boyutlu Bağlanma Stilleri Ölçeği

ÜÇ BOYUTLU BAĞLANMA STİLLERİ ÖLÇEĞİ		Kesinlikle Katılmıyorum	Katılmıyorum	Kısmen Katılıyorum	Katılıyorum	Kesinlikle Katılıyorum
1	Karşımdaki insanlar benim kadar değerli değiller.	☐	☐	☐	☐	☐
2	Birisiyle çok fazla samimi olduğumda sorun çıkabileceğinden kaygılanıyorum.	☐	☐	☐	☐	☐
3	Karar alırken kimseyi önemsemem.	☐	☐	☐	☐	☐
4	Sorunu olan birisini gördüğümde kendimi onun yerine koyabiliyorum.	☐	☐	☐	☐	☐
5	Başkalarının benim kadar değerli olduklarını düşünmüyorum.	☐	☐	☐	☐	☐
6	İnsanlardan ne kadar uzak durursam o kadar az üzülürüm.	☐	☐	☐	☐	☐
7	Ebeveynimle (anne, baba veya benim bakımı üstlenen bir başkası) iyi anlaşıyorum.	☐	☐	☐	☐	☐
8	İnsanlardan uzak duruyorum çünkü bana acı çektirebilirler.	☐	☐	☐	☐	☐
9	Bir sorun varsa bunun kaynağı genelde karşımdakilerin sorunlu olmasıdır.	☐	☐	☐	☐	☐
10	Kendimi mutlu bir insan olarak tanımlıyorum.	☐	☐	☐	☐	☐
11	Duygusal ilişki yaşadığım kişinin beni gerçekten sevmediğini düşünerek kaygılanıyorum.	☐	☐	☐	☐	☐
12	Yalnızca kendime değer veririm.	☐	☐	☐	☐	☐
13	Başkalarının üzüntülerini anlayabiliyorum.	☐	☐	☐	☐	☐
14	Duygusal ilişkilerden uzak duruyorum çünkü terk edilmek istemiyorum.	☐	☐	☐	☐	☐
15	İnsanların görüşleri benim için önemsizdir.	☐	☐	☐	☐	☐
16	Ebeveynlerime (anne, baba veya benim bakımı üstlenen bir başkası) genelde kırıcı sözler söylemem.	☐	☐	☐	☐	☐
17	İnsanlardan ne kadar uzak durursam o kadar mutlu olurum.	☐	☐	☐	☐	☐
18	Başkaları çok da umurumda değildir.	☐	☐	☐	☐	☐

Ölçekte ters madde bulunmamaktadır.

Güvenli Bağlanma Stili : 4, 7, 10, 13, 16
Kaçınan Bağlanma Stili : 1, 3, 5, 9, 12, 15, 18
Kaygılı-Kararsız Bağlanma Stili : 2, 6, 8, 11, 14, 17

Appendix 4: Emotion Regulation Questionnaire (ERQ)

DUYGU DÜZENLEME ANKETİ

1	2	3	4	5	6	7
Kesinlikle katılmıyorum	Katılmıyorum	Biraz katılmıyorum	Kararsızım	Biraz katılıyorum	Katılıyorum	Kesinlikle katılıyorum
1.	_____	Daha fazla olumlu duygu hissetmek istediğimde (sevinç veya eğlence gibi) düşündüğüm şeyi değiştiririm.				
2.	_____	Duygularımı kendime saklarım.				
3.	_____	Daha az olumsuz duygu hissetmek istediğimde (üzüntü veya öfke gibi) düşündüğüm şeyi değiştiririm.				
4.	_____	Olumlu duygular hissettiğimde onları belli etmemeye dikkat ederim.				
5.	_____	Stresli bir durumla karşılaştığımda, sakin kalmama yardım edecek şekilde düşünmeye çalışırım.				
6.	_____	Duygularımı belli etmeyerek onları kontrol ederim.				
7.	_____	Daha fazla olumlu duygu hissetmek istediğimde o durumla ilgili düşünce şeklimi değiştiririm.				
8.	_____	İçinde bulunduğum duruma göre düşünce şeklimi değiştirerek duygularımı kontrol ederim.				
9.	_____	Olumsuz duygular hissettiğimde onları belli etmediğimden emin olmak isterim.				
10.	_____	Daha az olumsuz duygu hissetmek istediğimde o durumla ilgili düşünce şeklimi değiştiririm.				

Appendix 5: Ethics Committee Approval



T.C.
YEDİTEPE ÜNİVERSİTESİ REKTÖRLÜĞÜ

14.12.2022

Sayı : E.50532705-302.14.01-1406
Konu : Özlem Şarlıoğlu Kurul Onayı

İLGİLİ MAKAMA

Üniversitemiz Eğitim Bilimleri Enstitüsü Rehberlik ve Psikolojik Danışmanlık Yüksek Lisans Öğrencisi Özlem Şarlıoğlu'nun, Dr. Öğr. Üyesi Burcu Aykaç danışmanlığında gerçekleştireceği "The Relationship Between University Students' Digital Game Addiction, Attachment Style and Emotion Regulation Levels" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğuna ilişkin Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu Onayı ekte sunulmuştur.

Gerekli iznin verilmesi hususunu bilgilerinize arz ve rica ederim.

İmza
Prof. Dr. Fatma Yeşim EKİNCİ
Rektör a.
Rektör Yardımcısı

Ek: Etik Kurul Onayı.pdf

Bu belge, güvenli elektronik imza ile imzalanmıştır.

Belge Doğrulama Adresi : <http://belgedogrulama.yeditepe.edu.tr/bg.aspx?id=CC688068-DB04-436E-A0BC-3F32EDCC45F3>

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**YEDİTEPE ÜNİVERSİTESİ BEŞERİ VE SOSYAL BİLİMLER ETİK
KURULU KOMİSYONU**

**28.10.2022 TARİHLİ
33/2022 No'lu TOPLANTI KARARLARI**

- 1) Yeditepe Üniversitesi Eğitim Bilimleri Enstitüsü Rehberlik ve Psikolojik Danışmanlık Yüksek Lisans Öğrencilerinden Ece Ayer'in, Dr. Öğr. Üyesi Burcu Aykaç danışmanlığında gerçekleştireceği "The Relationship Between University Students' Use of Social Media, Psychological Well-Being, and Self-Esteem" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.
- 2) Yeditepe Üniversitesi Eğitim Bilimleri Enstitüsü Rehberlik ve Psikolojik Danışmanlık Yüksek Lisans Öğrencilerinden Özlem Şarlıoğlu'nun, Dr. Öğr. Üyesi Burcu Aykaç danışmanlığında gerçekleştireceği "The Relationship Between University Students' Digital Game Addiction, Attachment Style and Emotion Regulation Levels" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.
- 3) Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü İşletme Doktora Öğrencilerinden Yudum Tuğçe Erki'nin, Doç. Dr. Aslı Tolunay danışmanlığında gerçekleştireceği "Consumers' Motivations in Food Waste Management and Sustainable Food Consumption and the Effectiveness of Sustainability Communication in Social Media" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.
- 4) Yeditepe Üniversitesi Eğitim Bilimleri Enstitüsü İngiliz Dili Eğitimi Yüksek Lisans Öğrencilerinden Soner Yaşar'ın, Dr. Öğr. Üyesi Zeynep Koçoğlu danışmanlığında gerçekleştireceği "Wordstore Uygulamasını Kelime Defteri Olarak Kullanmanın Kelime Bilgisi Üzerindeki Etkisi" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.
- 5) Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü Uluslararası Ticaret ve Lojistik Yönetimi Doktora Öğrencilerinden Murat Danışman'ın, Prof. Dr. Erkut Akkartal danışmanlığında gerçekleştireceği "Defining a New Business Model for Sustainable Biomass Production for Forestry Residues and Determining Able Forest Villages to Involve them in Production: The Case of Turkey" başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu Yeditepe Üniversitesi Beşeri ve Sosyal Araştırmalar Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.

**YEDİTEPE ÜNİVERSİTESİ BEŞERİ VE SOSYAL BİLİMLER ETİK
KURULU KOMİSYONU**

**28.10.2022 TARİHLİ
33/2022 No'lu TOPLANTI KARARLARI**

Prof. Dr. Suat ANAR
Etik Kurul Komisyon Başkanı
İletişim Fakültesi, Gazetecilik Bölümü

Prof. Dr. Sultan ÜZELTÜRK
Hukuk Fakültesi, Hukuk Bölümü

Prof. Dr. Cengiz ERİŞEN
İktisadi ve İdari Bilimler Fakültesi, Siyaset Bilimi ve Uluslararası İlişkiler Bölümü

Prof. Dr. Demet LÜKÜSLÜ
Fen-Edebiyat Fakültesi, Sosyoloji Bölümü

Prof. Dr. Saffet BABÜR
Fen-Edebiyat Fakültesi, Felsefe Bölümü

Prof. Dr. Rıfat KAMAŞAK
İktisadi ve İdari Bilimler Fakültesi, İşletme Bölümü

Prof. Dr. Ayşe Münire Erden
Eğitim Fakültesi, Rehberlik ve Psikolojik Danışmanlık Bölümü

Appendix 6: Permission of the Scales Used

Ölçek Kullanım İzni Hakkında

Gelen Kutusu x





Özlem Tören



Merhaba **Zekihan** Bey,

Yeditepe Üniversitesi Rehberlik ve Psikolojik Danışmanlık yüksek lisans bölümünde öğrenimime devam etmekteyim, şu an tez yazımı aşamasındayım. Yüksek lisans tezimde kullanmak üzere uyarlamış olduğunuz 'Üniversite Öğrencileri İçin Dijital Oyun Bağımlılığı Ölçeği'ni tezimde kullanmak için izninizi talep etmekteyim. Ölçek uyarlama çalışmasını, makalesini ve ölçeklerin maddelerini paylaşabilir misiniz?

Destekleriniz için teşekkür eder, iyi çalışmalar dilerim.
Saygılarımla,

Psikolojik Danışman Özlem Tören



zekihan hazar



Sayın araştırmacı ölçeği çalışmanızda kullanabilirsiniz ancak halihazırda bilgisayarım olmadığı için ilgili belgeleri gönderemiyorum ancak derseniz ölçek makalesinden bütün bilgilere ulaşabilirsiniz iyi çalışmalar diliyorum kolay gelsin

 Yanıtla

 Yönlendir

Ölçek Kullanım İzni Hakkında

Gelen Kutusu X



Özlem Tören



Merhaba Evren Bey,

Yeditepe Üniversitesi Rehberlik ve Psikolojik Danışmanlık yüksek lisans bölümünde öğrenimime devam etmekteyim, şu an tez yazımı aşamasındayım. Yüksek lisans tezimde kullanmak üzere geliştirmiş olduğunuz **'Uç Boyutlu Bağlanma Stilleri Ölçeği'**ni tezimde kullanmak için izninizi talep etmekteyim. Ölçek geliştirme çalışmasını, makalesini ve ölçeklerin maddelerini paylaşılabılır misiniz?

Destekleriniz için teşekkür eder, iyi çalışmalar dilerim.
Saygılarımla,

Psikolojik Danışman Özlem Tören



evren erzen



Merhabalar

Ölçeği çalışmanızda kullanmanızdan memnuniyet duyuyorum. Ölçekle ilgili psikometrik özellikler makalede yer alıyor. Ölçek maddeleri ise makalenin sonunda bulunuyor. Ayrıca yardımcı olabileceğim bir konu olursa bana ulaşabilirsiniz.

Çalışmalarınızda başarılar diliyorum.

İyi çalışmalar

Dr. Evren ERZEN

Ölçekte her bir bireyin **bağlanma** stilini ayrı ayrı belirlemeyi amaçlıyorsanız bir bireyin sahip olduğu en yüksek **bağlanma** stili puanını belirliyorsunuz ve o kişi hangi **bağlanma** stiliinden en yüksek puanı aldıysa o **bağlanma** stiline sahip olarak kabul ediliyor. Eğer bireyin **bağlanma** stiliyle sürekli verileri analize sokarsanız her bir **bağlanma** stilinin toplam puanını almanız yeterli olacaktır. Burada dikkat edilecek tek nokta tüm **bağlanma** stillerinin ayrı ayrı toplam puanlarının alınmasıdır. **Uç** stili de toplayıp tek bir puan elde edilmesi mümkün değil. Çünkü boyutlardan ikisi negatif birisi pozitif.



Ölçek kullanım izni hakkında

Gelen Kutusu x



Özlem



Merhaba Tarık Bey,

Yeditepe Üniversitesi Rehberlik ve Psikolojik Danışmanlık yüksek lisans bölümünde öğrenimime devam etmekteyim, şu an tez yazımı aşamasındayım. Yüksek lisans tezimde kullanmak üzere uyarlamış olduğunuz "Duygu Düzenleme Anketi"ni tezimde kullanmak için izninizi talep etmekteyim. Ölçek uyarlama çalışmasını, makalesini ve ölçeklerin maddelerini paylaşabilir misiniz?

Destekleriniz için teşekkür eder, iyi çalışmalar dilerim.
Saygılarımla,

Psikolojik Danışman Özlem Tören



Tarik Totan



Merhaba

Ölçeğe ve puanlamasına ekte ulaşabilirsiniz

Kolaylıklar dilerim

Prof. Dr. Tarık TOTAN

