



A Meta-Synthesis Study on the Causes and Results of Digital Addiction

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Abstract

In the information age that we live in, various digital platforms such as social media, computers, the Internet, and smartphones have become an indispensable part of our lives. Therefore, digital addiction has emerged and spread wide due to an increase in digital technologies. In this context, this study aimed to investigate the causes and consequences of digital addiction. This study provides an in-depth and comprehensive analysis of digital addiction through a meta-synthesis of qualitative parts of qualitative and mixed studies on digital addiction published after 2007. The study data were obtained using Scholar Google, Scientific and Technological Research Council of Turkey (TÜBİTAK), and National Academic Network and Information Center (ULAKBİM) Database EBSCOhost-ERIC databases. The collected data were evaluated within the framework of "inclusion" and "exclusion" criteria for the study and therefore 20 articles were included. The results of the study were presented and interpreted as "Frequency Values," "Code," and "Main Theme." The obtained data were analyzed and interpreted according to the thematic content analysis method. As a result, it was found that the causes of digital addiction were grouped in four main themes as "Information Addiction," "Game Addiction," "Desire To Socialize," and "Laziness Problem." The negative consequences of digital addiction were found as "Physical Problems," "Psychological Problems," and "Socialization Problems."

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Keywords: Addiction; Digital addiction; Internet addiction; Meta-synthesis; Thematic content analysis.

Introduction

In the 21st century, technological developments, which led to digitalization, have significantly affected human life. Within this context, digital tools are used widely in many fields such as education, trade, communication, games, public services, etc. [1]. Moreover, online interactions between groups of people with similar interests have emerged rapidly. Digital devices and their applications have a significant role in the daily lives of individuals. The use of digital devices effectively and efficiently is a key factor. When these devices are used properly, they will provide positive effects on humans.

On the contrary, improper use will cause many negative effects on the users. With internet technology and information technologies, communication has shifted from real environments to virtual environments. As these technologies' virtual interactivity has increased, this so-called interactivity to create "addiction" has also increased. Addiction is defined as the inability to stop or control behavior or a substance. It is stated that addiction has destructive effects on individuals' physical, social, emotional, and mental health [2]. Addiction is a recurrent chronic brain disease characterized by searching and using



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an impulsive substance or virtual exercise [3]. In the literature, it is seen that addiction is classified as “Substance Addiction,” which includes addiction like alcohol, drug addictions, cigarette, etc., and “behavioral addiction,” which includes activities as gambling, spending too much time with digital tools, doing sports excessively, etc [4].

The Internet is a powerful tool that eliminates time and space constraints, and it affects many users through social networks, leading to the shift of many life practices into virtual media through content generation and sharing. Nowadays, many daily life practices that require face-to-face communication can be conducted online. This situation causes people to spend more time on social media by moving away from real environments and creating a new type of addiction called “Digital Addiction.” This new type of addiction isolates people of all ages, especially children and young people, by taking them out of ordinary real-life courses [5]. However, this new form of addiction differs from other forms of addiction as being interactive. According to Breitrose (1985) [6], another difference is that information in traditional technologies is the media’s monopoly, whereas, in new technologies, the media has become an oligopoly, a structure with few service providers and many service recipients. While traditional technologies do not consider the masses’ wishes and expectations, new technologies have become more sensitive to the masses’ wishes. On the other hand, while traditional communication technologies are manufacturer-centered, new communication technologies are distinguished as being “Buyer,” “Consumer,” and “Multi” centered.

Different concepts express people’s addiction to technology. In this study, the concept of digital addiction, which is coded as a new form of addiction and expresses obsessive and uncontrolled addiction on computer and internet technology, is used with the same meaning with the concepts as internet addiction disorder, compulsive internet use, pathological internet use, excessive internet use, internet dependency, problematic internet use and online addiction [7]. In this sense, digital addiction is used to mean a pathological situation that causes people to lose control over themselves and experience physical and psychological social problems [8,9] “Social Networks”, “Blogs”, “Wikis”, “Podcasts”, “Forums”, “Content Communities” and “Microblogs” are the most important tools of digital addiction [10]. Also, content sharing sites like Facebook, Flickr allows users to share photos, video sharing sites like YouTube, business and career sites like LinkedIn, microblog sites like Twitter, and many social networking sites where users are content producers [11] affect the wide masses as the media that lead to addiction.

Addicted people who do not have a social life outside the Internet and who feel alone, differentiated, or asocial when away from mobile devices struggle in the vortex of digital addiction. The people, who can only talk on social media with their closest friends, become addicted people who travel with new and false identities in the virtual world, not in the real world. The problem of digital addiction is encountered at almost any age, and with this new type of addiction, especially young people, are at greater risk. In the U.S., 29% of infants under one year of age spend an average of 90 minutes with screens [12]. According to a survey conducted by E.U. Kids Online, the number of children who spend time on digital platforms in Turkey increased 2 times from 2010 to 2015, and the first internet usage age decreased from two to five years of age [13]. It was found that children between 2 and 6 years of age, who are at the most critical period for healthy development, spend an average of 4 hours a

day in front of the screen [14]. These figures show that the age of acquainting with social networks is gradually decreasing today. Research on digital addiction shows that digital addiction causes significant health, performance, and productivity problems. According to the research, IAB (2017) [15], with the name of “Always On: A Global Perspective of Mobile Consumer Experience,” about two-thirds (63%) of smartphone users around the world use their phones every half hour; more than one fifth (22%) checks every 5 minutes. 62% of the users in Turkey use their smartphones every half an hour. All these figures show that there is a “Digital Addiction” problem.

In this study, the phenomenon of digital addiction is analyzed based on the attachment theory, which is the framework theory in emotion and behavior regulation [16] and emotion regulation theory [17]. Attachment theory provides a framework for understanding and explaining relationship dynamics and emotion regulation strategies, and addiction processes established in the early period and at every stage of life [18]. Digital addiction is not a necessary and unavoidable technology-human dialectic process but a problem related to self-awareness. Its solution is to increase conscious awareness and individual consciousness through education and not lose conscious control over the human-technology relationship. Finally, considering that the human-technology relationship is not deterministic but a mutual interaction, it should not be ignored that the strong side is still human. This shows that, as with any other addiction, there is still reason to be hopeful in the fight against digital addiction. When it comes to addiction, it should not be ignored that there is an asymmetry in favor of humans in every situation in human and technology use. In light of this information, in this study, it is aimed to investigate the causes of digital addiction and the negative consequences of this addiction on human beings by using a meta-synthesis method based on primary sources. Therefore, the study’s main question is determined as “*Is the use of social media a real need or a shelter for people who want to get rid of the perception of loneliness?*”. Also, the following sub-problems are tried to be answered:

1. *What are the main causes of digital addiction?*
2. *What are the possible consequences of digital addiction on addicted people?*

Method

Design of the study

The study was designed as a qualitative research method. In this research, the causes and consequences of digital addiction were determined based on qualitative and mixed research and meta-synthesis methods. Meta-synthesis studies are designed to develop a holistic perspective based on the qualitative parts of qualitative and mixed researches conducted on a subject [19]. In this study, the meta-synthesis technique was employed since it enables qualitative studies related to each other to be brought together within the framework of specific themes, to make more powerful comments, to reach a common opinion, and to increase the reliability and accuracy of the research results [20,21].

The data and data collection process

In the study, academic articles related to digital addiction were involved. The articles used for this study were retrieved from ULAKBIM Social Sciences, Dergipark, ERIC, EBSCO, SCOPUS, and Scholar Google research databases. Keywords as “Digital

Addiction”, “Internet Addiction”, “Netless Phobia”, “Nomophobia” were used to search for the relevant sources. It is accepted that at least 10-12 primary sources should be sufficient to reach meaningful and valid findings in meta-synthesis studies [22,23]. In the study, inclusion and exclusion criteria were applied to the obtained studies. The inclusion criteria for the qualitative component included the following: (1) publication was qualitative in research design; (2) publication was in nature; (3) publication dealt with the investigation of digital addiction; (4) the study used primary data. The exclusion criteria included (1) papers with an entirely conceptual or theoretical background and no research design; (2) quantitative-based research analysis; and (3) master and doctoral theses. In this study, 20 primary sources were included in the meta-synthesis Study for a rich interpreta-

tion. Each study included in the study was first read in detail and examined according to research problems and coded according to each theme. Each study examined was coded as P1, P2, P3 P20. The study included in the study is presented in Table 1.

When Table 1 is examined, it is seen that the included studies were grouped under the headings of “Mobile Technology Addiction”, “Digital Addiction”, “Digital Game Addiction”, “Internet Addiction”, “Technological Addiction of the Students”, “Social Media Addiction”, “Smart Phone Addiction”, “Digital Relationship Addiction” And “Social Media Addiction”.

The descriptive features of the included studies are presented in Table 2.

Table 1: Studies included in the study.

Code	Reference	Objective
R1	Aksoy ME. A qualitative study on the reasons for social media addiction. <i>European Journal of Educational Research</i> . 2018; 7: 861-865.	To determine the causes of social media addiction of individuals, who define themselves as social media addicts.
R2	Spangler SC. Digital Natives and Mobile Technology Addiction. <i>Issues in Information Systems</i> . 2015; 16.	To understand mobile technology addiction and pinpoint its knowledge and acceptance in the digital native culture.
R3	Hussain Z, Griffiths MD. The attitudes, feelings, and experiences of online gamers: A qualitative analysis. <i>Cyber Psychology & Behavior</i> . 2009; 12: 747–753.	To explore the attitudes, experiences, and feelings of online gamers.
R4	Özyirmidokuz E, Karakaş BA. Dijital Bağımlılık ile Mücadelede Sosyal Bilişimin Rolü. Paper presented at the Fifth International Management Information Systems Conference. 2018.	To discover the role and effect of social informatics to combat digital addiction.
R5	Yücel, G. ve Şan, Ş. Dijital Oyunlarda Bağımlılık ve Şiddet: Blue Whale Oyunu Üzerinde Bir İnceleme. <i>AJIT-e: Online Academic Journal of Information Technology</i> . 2018; 9: 88-100.	To analyze the attitude of the media against the problems caused by digital game addiction and violence
R6	Beranuy M, Carbonell X, Griffiths MA. Qualitative analysis of online gaming addicts in treatment. <i>Int J Ment Health Addict</i> . 2012; 11: 149–161.	To determine the measures to be taken for the treatment of online game addicts.
R7	Ünlü, F. Orta Yaş Üstü Bireylerde Sosyal Medya Bağımlılığı ve Sosyal İzolasyon. <i>PESA Uluslararası Sosyal Araştırmalar Dergisi</i> . 2018; 4: 161-172.	Analysis of social media addiction of middle-aged individuals using virtual ethnography method..
R8	Karadağ E, Tosuntaş ŞBvd. Sanal Dünyanın Kronolojik Bağımlılığı: Sosyotizm (Phubbing). <i>AD-DICTA: The Turkish Journal on Addictions</i> . 2016; 3: 223-269.	To investigate the causes and effects of addictions of smartphone addicts.
R9	Karadağ E, Kılıç B. Öğretmen Görüşlerine Göre Öğrencilerdeki Teknoloji Bağımlılığı, Psikiyatride Güncel Yaklaşımlar Dergisi. 2019; 11: 101-117.	To examine students' technology addiction on their academic and social lives
R10	Davey S, Davey A. Assessment of Smartphone Addiction in Indian Adolescents: A Mixed Method Study by Systematic-review and Meta-analysis Approach. <i>International Journal of Preventive Medicine</i> . 2014; 5: 1500-1511.	To examine the physical and psychological effects of smartphone addiction on young people..
R11	Atasoy M, Altun M, Yalçinkaya A. Analysis of the Perceptions of the Digital Game Concept of 9-10 Year Children by Means of Metaphors. <i>Turkish Studies</i> . 2018; 13: 37-46.	To determine the perception of digital games of children aged 9-10 by means of metaphors.
R12	Hazar Z, Demir Tekkekurşun G, Dalkıran H. Ortaokul Öğrencilerinin Geleneksel Oyun Ve Dijital Oyun Algılarının İncelenmesi: Karşılaştırmalı Metafor Çalışması. <i>Sportmetre</i> . 2017; 15: 179-190.	To determine secondary school students' perception of digital and traditional games through metaphors.
R13	Dwyer C. Digital Relationships in the 'MySpace' Generation: Results From a Qualitative Study. <i>Annual Hawaii International Conference on System Sciences</i> . 2007.	To examine the forms of digital relationship of young people defined as Myspace generation.
R14	Julia Kneer & Diana Rieger & James D. Ivory & Christopher Ferguson, Awareness of Risk Factors for Digital Game Addiction: Interviewing Players and Counselors, <i>Int J Ment Health Addiction</i> . 2014; 12: 585–599.	To investigate the risk factors for digital game addiction.
R15	Toran M, Ulusoy Zvd. Çocukların Dijital Oyun Kullanımına İlişkin Annelerin Görüşlerinin Değerlendirilmesi. <i>Kastamonu Eğitim Dergisi</i> . 2016; 24: 2263-2278.	To examine the views of mothers about the reasons of children' preference of digital games.
R16	Ertemel AV, Eroğlu Pektaş GÖ. Dijitalleşen Dünyada Tüketici Davranışları Açısından Mobil Teknoloji Bağımlılığı: Üniversite Öğrencileri Üzerine Nitel Bir Araştırma. <i>Yıldız Sosyal Bilimler Enstitüsü Dergisi</i> . 2018; 2: 18-34.	To examine the university students' digital addictions and their feelings of pleasure and guilt as a result of addiction
R17	Kuşay Y, Akbayır Z. Dijital Oyunlar ile Tüketime Yolculuk: “Öğrenme Yaklaşımı Açısından Çocuk Kullanıcılara Yönelik Bir Araştırma”. <i>Akdeniz İletişim Dergisi</i> . 2015; 135-154.	To examine the consumption messages that lead to consumption of games played in digital environments.
R18	Cıngı M. Dijital Oyunseverlerin İslamofobi İçerikli Oyunlara Bakışı. <i>Medya ve Din Araştırmaları Dergisi</i> . 2018; 1: 49-72.	To examine the digital games and the islamophobic elements in digital games.
R19	Çakmak Veysel, Aktan, Ercan. Internet Cafes, Young People And Game Interaction: A Study In The Context Of Subculture, <i>MANAS Journal of Social Studies</i> . 2018; 7: 585-600.	Investigation of Internet cafes, youth, and game interaction in the context of subculture.
R20	Wen Li, Jennifer E. O'Brien, Susan M. Snyder, Matthew O. Howard. Characteristics of Internet Addiction/ Pathological Internet Use in U.S. University Students: A Qualitative-Method Investigation, <i>PLoS ONE</i> 10(2): e0117372. Published: 2015; 3: 1-19.	Investigation of internet addiction and pathological internet usage among U.S. university students

Table 2: Descriptive features of the primary researches included in the study.

Publication Type	Data Collection Tool		Method		Data Analysis			
	Interview	Document Analysis	Quantitative	Mixed	Discourse Analysis	Content Analysis	Metaphor Analysis	Descriptive Analysis
20	15	5	18	2	1	6	2	13

As seen in Table 2, the studies included in the study consist of 20 studies. 18 of them are qualitative, and 2 of them are mixed research methods. Qualitative research and the qualitative part of the mixed researches were included in the study. In the studies included in the study, it was seen that "interview technique" (n=15) was used as the data collection technique, and descriptive analysis technique (n= 13) was preferred more in the analysis of the data.

Validity and reliability

In qualitative research, validity is generally classified as descriptive, interpretative, and theoretical [24]. Descriptive validity refers to the accuracy and the objectivity of the data [20]. Also, the validity of the study can be increased by ensuring consistency between codes in the research. In such studies, the reliability of the intercoder is expected to be at least 70%. In this study, it was found that the researchers' reliability was 93% according to the formula of $P = [Na/Na+Nd] \times 100$ proposed by Miles and Huberman (2002). Interpretive validity captures how well the researcher reports the participants' meaning of events, objects and/or behaviors. In this context, codes were tried to be determined by direct quotations from the primary sources included in the study. The theoretical validity is that the experts outside the research examine the codes and themes' accuracy level. This study was conducted by deciding that the findings obtained were reproducible, ensuring validity [22].

Data analysis

In the study, the "Thematic Synthesis Technique" was used in the analysis of the data. In the thematic synthesis, the se-

quence of coding of the primary studies' findings and the formation of high-level themes in which descriptive codes were collected were followed [25]. In the process of data analysis, the steps as determining the main and sub-questions of the research, reviewing the appropriate literature for the subject of the study, reviewing and evaluating the data sources, determining the inclusion and exclusion criteria, analyzing the selected studies, identifying the common themes and synthesizing the findings obtained within the framework of themes were followed [26,19].

Findings

In the primary studies that constitute the research sample, it is seen that digital addiction is gathered under the themes of "Information Addiction," "Game Addiction," "Desire To Socialize," and "Laziness Problem". In the primary studies, it was obtained that most of the digital addiction stems from information addiction (n=53) and desire to socialize (n=43). The data obtained from the primary studies on the causes of digital addiction are presented in Table 3.

When Table 3 is examined, it is understood that the reasons for digital addiction identified in the primary researches stem from the themes of "Information Addiction," "Game Addiction," "Desire To Socialize," and "Laziness". The main themes related to the causes of digital addiction were found as "Information Addiction" (n=53), "game addiction (n=19), desire to socialize (n=43) and "Laziness" (n=39).

Table 3: Causes of Digital Addiction.

Theme	Code	F	Within Theme %	Total %	Total Addiction
Information addiction	To follow the developments	19	12,33	34,39	53
	Dealing with rumors	7	4,54		
	Reacting to events	3	1,94		
	Self-expression	6	3,89		
	To access up-to-date information	12	7,79		
	Improve yourself	6	3,89		
Game addiction	Escape from the real world	15	9,74	12,38	19
	Seek refuge in the virtual world of games	4	2,59		
Desire to socialize	Make friends	11	7,14	27,89	43
	To communicate with others	16	10,38		
	To be included in the social group	5	3,24		
	Not to be excluded	2	1,29		
	To find a place in society	9	5,84		
Laziness problem	Spending free time	11	7,14	25,35	39
	To get rid of boredom	12	7,79		
	Not to sit idly	9	5,84		
	Not finding anything else to do	7	4,54		
Total		154	100	100	154

Information addiction

In the primary studies examined, it was understood that the reason for digital addiction, which had the highest percentage (34.39%; f = 19), was information addiction. The second most crucial addiction code related to information addiction was found to be "to access up-to-date information" (7.79%; f=12). Also, the following descriptive statements regarding information addiction are stated in the primary studies:

*I like to follow the news and current events; as soon as I wake up, I look at my social media account.*P9, P11

*I feel like I missed something when I could not reach my social media account.*P1, P4

I am addicted to social media because I wonder what others are doing. P1, P14, P24

Game addiction

It is understood that the code with the highest percentage (9.74%; f = 15) in the primary studies related to game addiction was found as "escaping from the real world" and "Seeking refuge in the virtual world." Also, the following descriptive statements regarding game addiction are stated in the primary studies:

"I like to be with my friends in online games," "I can do things in online games that I cannot do in real life," "I think MMORPG games are new sources of addiction." P3, P13

"Playing games is a hobby for me," P 3, P7, P10

"When I lose a game, I immediately start a new game with the ambition to win." P3, P7, P20

"I discover my skills in the online game, and it feels good to be the master of the game". P7, P17

Desire to socialize

In the primary studies examined on the theme of the desire to socialize, the highest percentage (10.38%; f = 16) was obtained

from the code of "To communicate with others". Considering that the total theme code of the desire to socialize is 27.89% and the total addiction share is n=43, it is understood that one of the most important reasons for digital addiction stems from the desire to communicate. In this theme, the code with the second-highest score (7.14%; f=11) was obtained as "Making Friends". The following descriptive statements regarding desire to socialize are stated in the primary studies:

*"The main reason I use social media is to make friends and to a medium where I can be with my social media friends".*P1,P4, P7, P8, P17

"I feel lonely in real life. Social media makes me feel more comfortable". P8,P14

"Loneliness is the reason for being addicted. Since I'm shy, it's hard to make friends in real life, social networks make it easy." P23, P7, P14, P15

Laziness problem

Another theme derived from the primary data was identified as a laziness problem. This theme appears to be the cause of addiction (25.35%; f=39). In primary sources, it is understood that digital addicts (7.14%; f = 11), instead of evaluating the free time, use the Internet in a meaningless manner that does not produce value. The following descriptive statements regarding laziness problem are stated in the primary studies:

"I have much free time; social media makes my free time fun." P1,P3,P7,P9,P12

"Social media is a good environment to get away from stress." P13, P17

"It's fun to listen to music, watch movies, look at photos." P14

The second sub-problem of the study aimed to determine the negative consequences of digital addiction on addicted people. The obtained results are presented in Table 4.

Table 4: Negative Consequences of Digital Addiction.

Theme	Code	F	Within Theme%	Total%	Total problem
Physical problems	Obesity problems	2	1,65	9,88	12
	High blood pressure problems	1	0,81		
	Sleep disorder problems	5	4,13		
	Vision disorders	2	1,65		
	Musculoskeletal disorders	2	1,65		
Psychological problems	Mood disorders	15	12,39	27,29	33
	Concentration problems	4	3,33		
	Emotional emptiness	2	1,65		
	Violence and aggression	10	8,26		
	Forgetfulness	2	1,65		
Socialization problems	Decrease in social relations	19	15,72	62,79	76
	Decrease in communication skills	12	9,93		
	Introversion	10	8,26		
	Decrease in job/school performance and satisfaction	11	9,09		
	Inability to manage time	14	11,57		
	Reduced productivity	6	4,95		
	Unnecessary expenses	4	3,32		
Total		121	100	100	121

It is found that among the stated negative consequences of digital addiction on people, "social problems" was the most stated (%62,79; f=76;), which is followed by "Psychological Problems" (%27,29; f=33) and "Physical Problems" (%9,88; f=12). The results show that digital addiction drives people away from the real world and condemns them to the virtual world, killing people's sociality and damaging their position as actors in society.

Physical problems

When the studies were examined, it was found that within the physical problems, "Sleep Disorders Problems" was found to have the highest frequency (%4,13; f=5), which was followed by "visual problems" and "Obesity Problems" (%1,65; f=2). Therefore, it is understood that digital addiction is an important source of physical problems besides social and psychological problems. Descriptive statements on the physical problems obtained from the primary sources are given below:

"Computer addiction caused me inactivity and obesity problems". P2, P5, P9.

"Sitting for long periods in front of the computer causes blood pressure, sleep disturbance and visual impairment". P3, P5, P8, P15.

"Computer and internet addiction cause vision, muscle, and skeletal problems". P4, P9, P17, P20.

Psychological problems

In the study, the psychological problem's theme was the second most stated negative consequence of digital addiction (%27,29; f=33). Within this theme, "Mood Disorder" was the most important psychological problem (%12,39; f=15). The second most important problem in the main theme of psychological problems was obtained from the code of "Violence and Aggression" (8.26%; f = 10). In this theme, the code with the lowest percentage was found to be "Emotional Emptiness" and "Forgetfulness" (1.65%; f=2). Descriptive statements on the psychological problems are given below.

"Sitting in front of the computer for a long time makes it difficult for me to adapt to the real world. I think I have emotional problems". P4, P7, P13, P18

"The most stated negative consequence of internet addiction causes difficulty in focusing and distraction and forgetfulness". P2, P6, P9, P11, P13, P19

"It causes adaptation problems in real life." P3, P7, P11, P16, P20

Social problems

In the primary studies examined, "Decrease in social relations" was found to have the highest percentage (15.72%; f=19), which was followed by "inability to manage time" (%11,57; f=14) and "Decrease in Communication Skills" (%9,93; f=12) codes. In this theme, the "Unnecessary Expenses" code was the lowest negative impact code (3,32%; f= 4). Descriptive statements on the socialization problems are presented below.

"Spending a long time on the internet leads to a decrease in social relations and f communication skills." P2, P4, P8, P11, P15, P919

"Internet addiction weakens the control over life and effective management of time." P1, P3, P7, P9, P16, P19

"Social media addiction causes unnecessary expenses to increase." P1, P2, P6, P10, P11, P13

Discussion & results

People with digital addiction spend a long time in front of the screen with the "Hook Model" strategies, which are frequently used in social media, and are left alone with the discomfort of addiction's vicious circle. This is nothing other than what Plato and Aristotle called "Acrasia" and that the individual deliberately did evil to himself (Time Well Spent, 2017). Digital addicts become dependent people in a pseudo and false interaction in the face of the Internet and virtual reality, instead of gaining identity from real social life and being an individual whose attitude and behavior are their own. In the empirical studies on the subject, it is understood that the younger generations are in the cue of "Game Addiction." A study was conducted on a study group consisting of 828 high school students on digital addiction [27] 291 (35.14%) of the participants answered as "I care about being successful in the games." These dependent young people will painfully witness that the real world is not a "Game," considering that these people are looking for success in the game world, not in the real world, at a time when they should be real-life, direct, and build their future.

According to the research findings conducted based on primary sources, empirical studies on the desire for socialization, which is one of the most important causes of the digital addiction problem, show that people prefer to interact with other people without taking "Responsibility" for socialization efforts in digital environments rather than socializing in the real world. Those who stated, "I communicate with my friends via social media" are relatively high (71.49%; n=592). These values show that people live in a virtual world in the real world [27]. In another study, one of the reasons for digital addiction was that the individual could not communicate with the social environment due to the need for socialization [28]. Because of digital addiction, social adaptation and communication skills decrease, attention problems, Loneliness, and anxiety levels increase. A study conducted in the USA, 29% of young people and 39% of millennium young people showed that their interaction with smartphones is longer than the interaction time [29]. These figures can be argued that people kill their sociality by condemning to the virtual environment aside from digital addiction.

Empirical studies on psychological problems, which are one of the adverse effects of digital addiction, indicate that uncontrolled use of digital tools, behavioral disorders, and mood disorders occur in individuals with impaired cognitive perceptions. The individual is psychologically connected to digital tools and feels anxious, tense, and emptied when he/she cannot access them [30,31,32]. In research on the subject, it was found that depression among young people who use social media extensively increased by 27%. The same study determined that the sleep disorder problem due to digital addiction increased by 57% [29]. Attention Deficit and Hyperactivity Disorder (ADHD), autism, and "Tic" disorders occur in children [33].

One of the adverse effects of digital addiction is social problems, and empirical studies have shown that digital addiction causes the inability to communicate with friends to socialize sleep disorders, especially in younger generations. In research on youth in the United States [34], it was found that the frequency of meeting young people with their friends decreased by 40% between 2000 and 2015. Considering the description of "Man is a social animal" since ancient times, it can be as-

serted that man's sociality is not under threat as much as it is today due to digital addiction. Digital addiction is a common form of addiction that causes social, psychological, and physical problems for young people and people of all generations; as digital technologies' capabilities increase, the risk of addiction increases and expand.

Conclusion

In this meta-synthesis study, the reasons for the "Digital Addiction" phenomenon, which is a new type of addiction and has become a common problem with the internet infrastructure provided by information and communication technologies, were grouped under four main themes as "*Information Addiction*," "*Game Addiction*," "*Desire to Socialize*" and "*Laziness Problem*." On the other hand, the adverse effects or consequences of digital addiction on individuals were found as "*Physical Problems*," "*Psychological Problems*," and "*Socialization Problems*." As a result of the study, the most essential reason for digital addiction was found as "*Information Addiction*" (34.39%; $f = 53$), and the most significant adverse effect was found as "*Socialization Problems*" (62.79%; $f=76$). Among the information problem, the most important problem code was found as "*Follow the Developments*" (12,33; $f=19$), and the most damaging result of digital addiction was found as "*Decrease in Social Relations*" (15,72; $f=19$). The obtained results show that information curiosity, which has no scientific value and remains at the level of knowledge, significantly affects people's digital addiction.

This is a meta-synthesis study and is limited to 20 qualitative and mixed research studies. It is essential to continue research to direct people's attention and time to more creative and useful areas. Considering that all human behaviors are educable, directable, and manageable, precautions should be taken against digital addiction and rehabilitation, and participation of addicts in social life should be provided. Also, empirical and meta-synthesis studies aimed at directing people's time and efforts to more creative fields should be conducted.

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