INVESTIGATION OF SOLUTION RECOMMENDATIONS DEVELOPED BY PROSPECTIVE TEACHERS ON DIGITAL ADDICTION SCENARIOS

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Abstract

Digital addiction, which negatively affects the physical and psychological health of individuals and gradually spreads to different areas, is a problem that needs to be resolved for all organizations that care about individuals. Understanding, solving and developing interventions to reduce this problem is critical for a healthy social culture at macro scale and for the life of a healthy individual at micro scale. Digital addiction is a situation that can be seen in all areas of life and in all age groups. In this study, digital addiction scenarios were produced by wondering how digital addiction can be solved from the perspective of prospective teachers. It has been possible to evaluate the awareness, knowledge and competencies of the prospective teachers with the solution suggestions they brought to the digital addiction scenarios. The solution suggestions produced by the prospective teachers for the addiction problem of a digitally addicted student were gathered under the themes of detection, intervention and support, domestic arrangements, information and awareness raising, socialization and communication, and follow-up and observation. After the thematic analysis of these solution proposals, themes and sub-themes were created and the themes were discussed in the light of the literature.

Keywords: prospective teachers; digital addiction; problem solving; scenario

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BİLİŞİM TEKNOLOJİLERİ VE YAZILIMI ÖĞRETMEN ADAYLARININ DİJİTAL BAĞIMLILIK SENARYOLARI ÜZERİNDEN GELİŞTİRDİKLERİ ÇÖZÜM ÖNERİLERİNİN İNCELENMESİ

Öz

Bireylerin fiziksel ve psikolojik sağlıklarını olumsuz yönde etkileyen ve giderek farklı alanlara da yayılan dijital bağımlılık, bireyleri önemseyen tüm kuruluşlar için çözülmesi gereken bir problemdir. Bu problemin anlaşılması, çözülmesi, azaltılmasına yönelik müdahalelerin geliştirilmesi makro ölçekte sağlıklı bir toplum kültürü için, mikro ölçekte sağlıklı bir bireyin yaşamı için kritiktir. Dijital bağımlılık yaşamın her alanında ve her yaş grubu için geçerli olabilecek bir durumdur. Bu çalışmada dijital bağımlılığın öğretmen adaylarının gözünden nasıl çözülebileceği merak edilerek dijital bağımlılık senaryoları üretilmiştir. Öğretmen adaylarının üretilen senaryolara getirdikleri çözüm önerileri ile dijital bağımlılığa yönelik farkındalık, bilgi ve yeterliklerinin değerlendirilmesi mümkün olmuştur. Dijital bağımlı bir öğrencinin bağımlılık problemine yönelik öğretmen adayları tarafından üretilen çözüm önerileri tespit, müdahale ve destek, ev içi düzenlemeler, bilgilendirme ve farkındalık kazandırma, sosyalleşme ve iletişim kurma, takip ve gözlem temaları altında toplanmıştır. Bu çözüm önerilerinin tematik analizinin ardından temalar ve alt temalar oluşturulmuş ve temalar alanyazın eşliğinde tartışılmıştır.

Anahtar Kelimeler: öğretmen adayları; dijital bağımlılık; problem çözme; senaryo

Geniş Özet

Dijitalliğin içinde kaybolduğumuz ve açık, doğru ve güvenilir yollara ihtiyaç duyduğumuz şu dönemde zorlanmaktayız. Bu çalışmada öğretmenlik alanları içinde dijitali en iyi tanıyan ve en çok etkileşim kuranlar olarak BÖTE öğretmen adaylarının dijitalliğin getirdiği sorunlara yaklaşımlarının incelenmesi amaçlanmıştır. Dijital bağımlılık ile mücadele noktasında öğretmen adaylarının farkındalık ve hazır bulunuşlukları oldukça önemlidir. Çalışma nitel araştırma çerçevesinde yürütülmüş olup, öğretmen adayları onlara sunulan dijital bağımlılık senaryolarına çözümler üretmişlerdir. Bu çalışma, nitel araştırma desenlerinden durum çalışması çerçevesinde gerçekleştirilmiştir. Durum çalışması, var olan durumları olduğu gibi ortaya çıkarmak için kullanılır. "Nasıl" ve "Neden" sorularına dayalı olarak kontrol edilmeyen bir durum veya olgunun analiz edilmesini sağlar (Yıldırım ve Şimşek, 2008). Araştırmada Aydın Adnan Menderes Üniversitesi Eğitim Fakültesi Bilgisayar ve Öğretim Teknolojileri Eğitimi bölümlerinde öğrenim gören 44 son sınıf öğrencisinin görüşleri yarı yapılandırılmış görüşme soruları ile toplanmıştır. Araştırma grubu seçilirken uygun örnekleme yöntemi kullanılmıştır. Verilerin çözümlenmesi sürecinde tematik analizden yararlanılmıştır. Tematik analiz verileri detaylı bir şekilde gösteren (Boyatzis, 1998) ve veri analizine sistematik bir unsuru sağlayan yaklaşım olarak kabul edilmektedir (Alhojailan, 2012). Tematik Analiz, herhangi bir konunun potansiyelini daha geniş bir şekilde anlama fırsatı verir (Marks ve Yardley 2004). Öğretmen adaylarından dijital bağımlılık senaryosuna ilişkin elde edilen çözüm önerilerinin ön analizi sonucu toplam 166 görüş kodlanmış ve çözümlenmiştir. Bu kodlamaların benzerlik ve

farklılıkları incelenerek tema, alt tema ve kodlar oluşturulmuştur. Dijital bağımlı bir öğrencinin bağımlılık problemine yönelik öğretmen adayları tarafından üretilen çözüm önerileri tespit müdahale ve destek, ev içi düzenlemeler, bilgilendirme ve farkındalık kazandırma, sosyalleşme ve iletişim kurma ve takip ve gözlem temaları altında toplanmıştır. Katılımcılar arasında yaygın olan çözüm önerileri tespit, müdahale ve destek teması yer alırken, takip ve gözlem teması altındaki çözüm önerileri nadiren ifade edilmiştir. "Tespit müdahale ve destek" teması bağımlılığın tespiti ve öğrenciyi tanıma, ilgi alanı belirleme ve farklı ilgi alanlarına yönlendirme, sorumluluk atama ve Rehberlik ve Psikolojik Destek servisi desteği alt temalarından oluşmaktadır. "Ev içi düzenlemeler" teması internet ya da oyun kullanım kuralları, çalışma planı, oda düzeni ve uyku düzeni alt temalarından oluşmaktadır. "Bilgilendirme ve farkındalık kazandırma" teması öğrencinin durumu hakkında bilgilendirme, bağımlılık ile ilgili farkındalık, güvenli internet kullanımı ile ilgili farkındalık ve eğitim ve sınav ile ilgili farkındalık alt temalarından oluşmaktadır. "Sosyalleşme ve iletişim kurma" teması aile ile iletişim ve akranlar/arkadaşlar ile iletişim alt temalarından oluşmaktadır. Öğrenci ile iletişim kurulması ve çevresi ile iletişiminin artmasına yönelik etkinliklerin düzenlenmesi dijital bağımlı öğrencinin bağımlılıktan uzaklaşması için öğretmen adayları tarafından önerilmektedir. "Takip ve gözlem" teması bağımlılığın izlenmesine yönelik çözüm önerilerini içermektedir.

Introduction

Digital addiction is an umbrella term that includes subtypes of internet addiction, gaming addiction, social media addiction and digital media addiction, which have been on the agenda for a long time (Al-Khani et al., 2021; Christakis, 2019; Meng et al., 2022; Jamir et al., 2019). According to Statista (2021) data in January 2021, there were 4.66 billion active users for the internet, 4.2 billion for social media, and 4.32 billion for mobile internet, with a very high online stay time of 6.7 per day. Studies show that digital addiction is widespread by 4.60% in Western countries and 8.90% in Eastern countries (Pan et al., 2020). Digital addiction is not only dependent on online activities, but also includes offline activities (Almourad et al., 2020). It is clear that digital addiction negatively affects the whole life of individuals. While digital addiction is a big problem for individuals, it is also a serious problem for society when considered more broadly. For this reason, it is defined as a global concern (Király et al., 2020). As it is noticed with digital addiction, besides the necessity and benefits of technology for society, we may face big problems with its excessive use (Loredo et al., 2018). There is even evidences in the literature that internet addiction may be associated with social anxiety, depressive disorder, and attention deficit and hyperactivity disorder (Ho et al., 2014; Cheng & Li, 2014). Digital addiction attracts great attention from many disciplines such as education, neuroscience, sociology and psychology. Due to this diversity, it is seen that different conceptualizations are used to define digital addiction. In some areas, digital addiction is defined as being dependent on digital devices and environments. In other words, it is expressed as a high degree of behavioral addiction. However, in most areas, digital addiction is defined as a global problem. Therefore, it is clear that there is a need for global solutions and initiatives to prevent this addiction. (Cham et al., 2019). Considering that people are affected by everything they interact with, a conscious control is needed in our lives equipped with technology. Children and adolescents can be considered as the most vulnerable group in terms of controlling the processes towards the individual. In individuals who are addicted, symptoms such as violence, anxiety and fear formation, asocialism, physical weakness, attention disorders, low self-efficacy perception, weak visuo-spatial perception may occur. For

this reason, having digital addiction adversely affects both themselves, their families and their social and academic processes. Therefore, various measures should be taken to ensure that this age group does not have digital dependence and that their digital communication can be regulated in a healthy, adequate, effective and positive way (Fischer et al., 2010; Gentile et al., 2012; Greitemeyer & Mügge, 2014).

It can be said that the most important responsibilities in order to prevent children and young people from being digital addicted is primarily the parents and teachers with whom they spend the most time, but they belong to the whole society. In this respect, it is important that they can be conscious about what can be done in preventing or treating digital addiction (Ülkü, 2018; Baltan, 2020). In the use of digital technologies especially by children, families should guide and limit the duration of use, the sharing, the environments accessed and the behaviors exhibited in these environments. It is important for the correct and controlled use of these tools (Arslan, 2020; Çukurluöz, 2016). Considering that students spend most of their daily lives at school, it can be said that other people who need to take precautions together with families about digital addiction are teachers. At this point, it is important that the studies be carried out in parent-teacher cooperation. It can be said that it would be more appropriate for teachers to consciously direct students to use technology for positive purposes, especially instead of completely alienating students from technology. Thus, students' interest in technology will be able to focus on the beneficial aspects of technology rather than the dangerous aspects. In this regard, it is stated in the studies that both parents and teachers should be role models (Karadağ & Kılıç, 2019; Aktaş, 2021). The use of children's digital technologies begins primarily by imitating parents or other adults nearby. Therefore, it is important to have a good role model in their environment to prevent digital addiction (Dursun & Eraslan Çapan, 2018; Ekinci et al., 2019). Among the situations associated with the formation of digital addiction in children are bad parent role models, differences in parental interventions, and research on deficiencies in parental guidance (Süral, 2022). In these cases, it can be said that it is important to conduct awareness studies to guide parents. Developing a positive relationship between parents and their children is important in preventing digital addiction. However, it can be said that the positive relationship between teacher and student is equally important. It is stated that the insufficient relationship between the teacher and the student is also a mediator in the digital addiction of the students (Jia et al., 2017). In order to develop positive relationships and prevent digital addiction, it is necessary to talk to them, to listen and try to solve their troubles, to direct and encourage them to positive behaviors (Balcı & Gülnar, 2009). It is also stated that in the treatment processes for the negative situations of children and adolescents such as addiction, they should be directed to hobbies that will positively affect individuals such as sports and art (Avcı & Yıldırım, 2014). Therefore, raising the awareness of teachers to strengthen the bond they establish with students will be one of the measures to be taken against digital addiction. Apart from this, it is stated that teachers can develop various materials/activities to reduce the risks of digital addiction and increase students' awareness on this issue. One of them may be the inclusion of games in the process. For example, Liu (2011) conducted a research to raise awareness by incorporating digital games into teaching processes and made suggestions on how to use them in future research. In terms of digital dependence, it is very important to raise awareness of all individuals, especially families and teachers. However, it can be said that the treatment centers consisting of expert teams and working in cooperation with both teachers and parents should be established in order for students with digital addiction to receive support from experts (Arslan,

2020).

In this study, prospective teachers will produce various solutions to produce for scenarios developed on digital addiction. Thus, the study can help to raise awareness and prepare both the participants and other teachers who will read the study as teachers of the future. As a result, this study aims to examine the current awareness of the prospective teachers of information technologies about digital addiction. The solution proposals that prospective teachers bring about digital addiction are important to examine their awareness and readiness for this situation. Findings to be revealed in this direction, while making important contributions to the literature, can also give an idea about the current situation in teacher education.

Method

The data collection processes carried out within the scope of this research were approved by the Aydın Adnan Menderes University Educational Research Ethics Committee's document dated 05.07.2021 and numbered E-84982664. This study was carried out within the framework of case study, one of the qualitative research designs. A case study is used to reveal existing situations as they are. It enables the analysis of an uncontrolled situation or phenomenon based on "how" and "why" questions. Thus, it is ensured that the situation can be perceived as a unique and whole entity (Yıldırım & Şimşek, 2008). A holistic single case design was adopted within the scope of the study. In the holistic single case design, there is a single case analysis and the focus is on the relevant analysis unit (Yin, 2009; Yıldırım & Şimşek, 2008). Within the scope of the research, the way of reflecting the views of prospective teachers on the phenomenon of digital addiction to the relevant case study was evaluated, and the situation was tried to be described clearly. The case that will be examined in the context of the holistic single case design is the opinions of the prospective teachers who are students of Computer and Instructional Technologies Education (CEIT) department who have taken the informatics security course, about the relevant case studies. Since prospective teachers who are students in the CEIT department will have a role in teaching and guiding students in this subject area in their professional life; it is important to determine to what extent they reflect their knowledge.

There are four main stages in the realization of the research (See Figure 1). The first stage focused on the development of the data collection tool. At this stage, a case study was created and prospective teachers are expected to answer the interview questions in the light of this case study. The created interview form was presented to the expert opinion and necessary arrangements were made. In the second stage, it is possible to reach the participants and conduct the interviews. In the third stage, data analysis was carried out. At this stage, two different encoders examined the data, and the coder reliability was analyzed accordingly. In addition, the opinions of some participants were confirmed. The findings obtained in the last stage were interpreted.

Figure 1. Implementation process

Participants

Within the scope of the research, it is aimed to collect the opinions of the CEIT department students who have taken the information security course. It is important to determine to what extent these prospective teachers, who will explain the relevant subject to their students in their professional life, and who assume a guiding quality in this context, can reflect their knowledge. In this direction, 3rd year undergraduate students studying at Aydın Adnan Menderes University Education Faculty department of CEIT -who have taken the information security course- were designated as participants. Interviews were held with 44 prospective teachers. The age range of the students is between 20-25. 20 female, 24 male students took part in the research. The opinions were collected with semi-structured interview questions.

Convenience sampling method was used while selecting the research group. Convenience sampling, which is one of the purposive sampling methods, is chosen when it is close to the researcher and easy to access, or when it is often not possible for the researcher to use other sampling methods (Yıldırım & Şimşek, 2008). It was deemed appropriate to include a large number of participants in the study in order to increase data saturation and reliability due to the selection of the convenience sample. As Patton (2014) stated, data obtained from a large number of participants can play an important role in investigating a situation and revealing differences. For this reason, possible limitations due to the selected sample were tried to be minimized.

Data collection tool and analysis

As a data collection tool, a semi-structured interview form was given to the prospective teachers. There were two questions in the interview form. A case study was presented before the questions were conveyed to the prospective teachers. In this case study, a secondary school student with a digital addiction is mentioned and it is questioned how the prospective teachers can cope with this situation. Thematic analysis was used in the analysis of the data. Thematic analysis is accepted as an approach that displays data in detail (Boyatzis, 1998) and provides a systematic element to data analysis (Alhojailan, 2012). Thematic Analysis gives the opportunity to understand the potential of any topic more broadly (Marks & Yardley 2004). In this manner, the opinions of the prospective teachers were coded, and the themes were determined according to the similarities and differences in the opinions, and the findings were interpreted. The coding processes were carried out independently by two coders, and the encoder agreement percentage was obtained as 85%. Miles and Huberman (1994) stated that the encoder agreement percentage should be above 80%. The rate obtained within the scope of the research also shows that the coder reliability is at a high level.

Validity and reliability

In order to ensure validity within the scope of the research, the semi-structured interview form was finalized by taking expert opinions first, and participant confirmations were also received within the scope of the process. In order to ensure reliability, the research processes were explained in detail and the opinions were quoted and presented as evidence in the findings. In addition, in the context of coder reliability, the codes of two different coders were analyzed and the percentage of agreement was calculated and it was determined that there was 85% agreement. Due to the limited sample selection, it was considered important to ensure data satisfaction and the number of participants was kept high and the reliability was higher.

Results

As a result of the preliminary analysis of the solution recommendations obtained from the prospective teachers regarding the digital addiction scenario, a total of 166 opinions were coded and analyzed. By examining the similarities and differences of these codings, themes, sub-themes and codes were created (Table 1). Five themes were determined within the scope of the findings. When Table 1 is examined, it is seen that the number of codes forming the "diagnostic, intervention and support" theme is quite high. It is seen that the number of codes is intense in the themes of "plan, rules, arrangements", "information and awareness" and "socialization and communication"; It has been determined that the number of codes included in the "follow-up and observation" theme is low.

Table 1. Themes of solution recommendations for solving digital addiction

Theme	N (code)
Diagnostic, intervention and support	61
Plan, rules, arrangements	38
Information and awareness	34
Socialization and communication	28
Follow-up and observation	5

When the "Diagnostic, intervention and support" theme is examined in detail, it is seen that it has four sub-themes (Table 2). These are in order (1) Guidance and Research Centers (GRC) support, (2) identifying interests and directing them to different interests, (3) defining addiction and getting to know the student, and (4) Responsibility. It is seen that the majority of the identified codes are concentrated under the first two sub-themes. Some of the opinions of prospective teachers under this theme are as follows:

> *"I examine the student's sociability. I see how much time he spends in the game and how much time he spends outside. Then I collect feedback. Student I research whether he always spends his free time with games or if he has other activities. I collect all my data and information and conclude whether it is digitally addicted or not." (O37, Defining addiction and getting to know the student)*

"I can say that they can direct them to sports, or I can allow them to discover new things they may like to gain new hobbies. These hobbies can be starting swimming lessons or directing to music or painting. The correct determination of this is related to which one attracts Can's attention." (O19, Identifying interests and directing them to different interests)

"I tell the student to buy a pet and take on responsibility." (O23, Responsibility)
"...During the process, I will meet with the guidance service and guide it to achieve better results.." (O26, GRC support).

Table 2. Theme of "diagnostic, intervention and support" in detail

Theme	Sub theme	Code	n
Diagnostic, intervention and support	Guidance and Research Centers (GRC) support	Intervention and support of the GRC	20
	Identifying interests and directing them to different interests	Identifying and guiding interests	9
		Orientation to sports	7
		Encourage reading	4
		Determining the appropriate area of interest for the student with the GRC	3
		Orientation to art	2
	Defining addiction and getting to know the student	Diagnostic studies with GRC	5
		Analyzing the student's causes of addiction	2
	Responsibility	Giving responsibility	7
		Pet	2

Looking at Table 3 the theme of "plan, rules, arrangements" consists of sub-themes of (1) internet/game usage rules, (2) study plan, (3) room arrangements, and (4) sleep arrangements. It is seen that the majority of the detected codes are concentrated on the sub-theme of "internet/game usage rules". Some of the opinions of prospective teachers under this theme are as follows:

"...The computer in the room should be taken to the common area..." (O8, Room arrangements)

"...I am planning and controlling the student to sleep at bedtime. (O39, Sleep arrangements)

"...I prepare the daily work plan for Can together and tell them to follow this plan constantly..." (O20, Study plan)

Table 3. Theme of "plan, rules, arrangements" in detail

Theme	Sub theme	Code	n
Plan, rules, arrangements	Internet/Game usage rules	Restriction of internet/game use	16
		Child profile and redirect to safe internet usage	5
		Educational use of the Internet	3
		Creating a plan for internet/game usage	2
		Prohibition of internet/game use	1
	Study plan	Creation and follow-up of daily/weekly study plan	7
	Room arrangements	Taking the computer out of the room	2
	Sleep arrangements	Planning a sleep routine	2

Looking at Table 4 the theme of "information and awareness" consists of sub-themes of (1) Information about the student, (2) awareness about addiction, (3) awareness about education and exam, and (4) awareness of safe internet use. It is seen that the majority of the detected codes are concentrated on the sub-theme "information about the student". Some of the opinions of prospective teachers under this theme are as follows:

"...First, I meet with the parents to give information about this problem." (O26, Information about the student)

"...I give information about digital addiction to Can and tell his what the consequences will be.." (O23, Awareness)

"...Then I tell them to switch to safe internet use.." (O26, Awareness about addiction)
"...His parents should explain the importance of this exam well enough. His family should say that he will choose what kind of life he will have in the future.." (O31, Awareness about education and exam)

Table 4.   Theme of "information and awareness" in detail

Theme	Sub theme	Code	n
Information and awareness	Information about the student	Informing the family about the child	13
	Awareness about addiction	Informing the addicted student about the difficulties they may encounter	4
		Informing the addicted student about addiction	2
		Making presentations/seminars on addiction to all students	2
	Awareness about education and exam	Activities related to the importance of the exam	3
		Information about the desired and undesirable results of the exam	2
		Information on the importance of education	4
	Awareness of safe internet use	Informing the addicted student about the child profile and safe internet use	2
		Informing the dependent student's family about the child profile and safe internet use	2

Looking at Table 5 the theme of "socialization and communication" consists of sub-themes of (1) communication with the family, and (2) communication with friends. Some of the opinions of prospective teachers under this theme are as follows:

"...Then I tell them that they should get Can away from the computer by talking about issues that might attract Can's attention and make him feel valuable in the evenings." (O7, Communication with family)

"...On the weekends, I try to put him in the social environment by providing class activities.." (O35, Communication with friends)

Table 5.   Theme of "socialization and communication" in detail

Theme	Sub theme	Code	n
Socialization and communication	Communication with the family	Supporting family communication	9
		Activity with family members	5
	Communication with friends	Carrying out in-school activities	7
		Increasing communication with classmates	4
		Being involved in different social groups	2
		Control/restriction of current friend group	1

Looking at Table 6 The theme of "follow-up and observation" consists of sub-theme of monitoring behaviors. Some of the opinions of prospective teachers under this theme are as follows:

> *"...I prepare the daily work plan for Can together and tell them to follow this plan constantly.." (O20, Monitoring behaviors)*

Table 6.   Theme of "follow-up and observation" in detail

Theme	Sub theme	Code	n
Follow-up and observation	Monitoring behaviors	Observation of addiction change in student	3
		Constant communication with family	2

Conclusion and Discussion

We are struggling in this period when we are lost in digital and we need clear, accurate and reliable ways. In this study, it has been concluded that the approaches of CEIT prospective teachers to the problems brought by digitalism, as those who know and interact with digital best among the fields of teaching, have been completed. Awareness and readiness of prospective teachers are very important at the point of combating digital addiction. The study was carried out within the framework of qualitative research, and the prospective teachers produced solutions to the digital addiction scenarios presented to them.

As a result of the preliminary analysis of the solution proposals obtained from the prospective teachers regarding the digital addiction scenario, a total of 166 opinions were coded and analyzed. By examining the similarities and differences of these codings, themes, sub-themes and codes were created. The solution suggestions produced by the prospective teachers for the addiction problem of a digitally addicted student were gathered under the

themes of detection, intervention and support, domestic arrangements, information and awareness raising, socialization and communication, and follow-up and observation. While the solution suggestions common among the participants were under the theme of detection, intervention and support, solution suggestions under the theme of follow-up and observation were rarely expressed.

The theme of "Detection, intervention and support" consists of sub-themes of detecting addiction and getting to know the student, determining an area of interest and directing it to different areas of interest, assigning responsibilities, and Guidance and Psychological Support service support. At this point, it is emphasized that the diagnosis and treatment processes are very critical and necessary, especially in digital game addiction, and support is provided in rehabilitation centers with individual therapies or hospitalization in this process. In this respect, teachers need to be aware of the student's digital addiction and make the right guidance. Arslan (2020) also states that it is important to follow up students who are digitally addicted, and that treatment centers consisting of expert teams and working in cooperation with both teachers and parents should be established so that these students can receive support from experts. The theme of "Household arrangements" consists of the sub-themes of internet or game usage rules, work plan, room arrangement and sleeping arrangement. When the theme of domestic regulations is examined, it is understood that this is in line with the areas affected by addiction in the daily life of the individual in the International Classification of Diseases [ICD, 11]. In other studies, it is emphasized similarly that it is especially important for children to lead a regular and planned life. For this, it is stated that the use of digital technologies should be controlled and families should be guiding and limiting in terms of usage times, sharings, environments accessed and behaviors exhibited in these environments (Arslan, 2020; Çukurluöz, 2016). It is important to focus on the affected areas and make these areas more interesting and relaxing. For the child who is away from social life, it can be effective to plan activities with the sauce that he will enjoy, to create sleep routines and to make adjustments in play times. Avcı and Yıldırım (2014) similarly state that digitally addicted children and adolescents should be directed to positive social activities such as sports and art, where they can socialize more during the treatment process. The theme of "socializing and communicating" consists of the sub-themes of communication with family and communication with peers/friends. It is recommended by prospective teachers to establish communication with the student and to organize activities to increase communication with the environment in order for the digitally addicted student to get away from addiction. Encouraging socialization, participation in social activities and social learning is also very important in preventing, reducing or minimizing the effects of addiction (Ko et al., 2015; Hiniker et al., 2016; Hiniker et al., 2018). The theme of "informing and raising awareness" consists of sub-themes of informing about the student's situation, awareness about addiction, awareness about safe internet use, and awareness about education and exam. At this point, it is important to use CEIT teachers' knowledge of the digital world for the welfare of students. CEIT teachers should be given the necessary importance and support, and support should be obtained in terms of providing digital guidance as well as informatics and technological course contents. In suggestions for the theme of "follow-up and observation", it may be useful to use strategies such as self-monitoring and goal setting, rather than relying only on the observation of an outsider, for the student who is at risk of addiction or who is addicted (Hiniker et al., 2016).

In summary, it was seen that CEIT teachers' awareness was high for students at risk of digital addiction or digital addiction. It has been determined that important steps can be taken in the fight against digital addiction with the effectiveness and consistency of the solution proposals for digital addiction scenarios. On this note, it was hoped that CEIT teachers would be the bridge between us and the digital world through this study.

It is important to evaluate the results of this study within the framework of some limitations. Study data were collected from CEIT students studying at Adnan Menderes University. Although the data has been analyzed in detail and meticulously, studies to raise awareness about digital addiction can be carried out after this study by taking the opinions of different prospective teachers from universities that currently actively provide education in the CEIT department. In the study, data were collected by interview. More in-depth information can be obtained by using different methods such as thinking aloud protocols or delphi technique in acquiring data. By supporting the method of the study with the quantitative method, answers to different research problems can be sought with the mixed method. Based on the findings of the study, it was seen that CEIT prospective teachers had a high awareness of digital addiction, and the solutions for digital addiction scenarios were logical, consistent and effective. We hope that these results will be effective in supporting the employment of CEIT graduates and demonstrating the compulsory need of our education system for CEIT graduates.

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