THE EVALUATION OF INTERNET USAGE HABITS AND POSSIBLE INTERNET ADDICTION AND CYBERBULLYING-VICTIMIZATION LEVELS OF SELF-DESTRUCTIVE ADOLESCENTS

KENDİNE ZARAR VEREN ERGENLERİN İNTERNET KULLANIM ALIŞKANLIKLARI İLE OLASI İNTERNET BAĞIMLILIĞI VE SİBER ZORBALIK-MAĞDURİYET DÜZEYLERİNİN DEĞERLENDİRİLMESİ

Evrim AKTEPE[1], Orhan KOCAMAN[2], Funda ÖZYAY EROĞLU[3], Emel ÖZEN[4], Yonca SÖNMEZ[5], Yüksel EROĞLU[6]

[1] Department of Child and Adolescent Psychiatry, Faculty of Medicine, Suleyman Demirel University, ISPARTA
[2] Department of Child and Adolescent Psychiatry, Kutahya Evliya Celebi Research and Training Hospital, KUTAHYA
[3] Department of Child and Adolescent Psychiatry, Mehmet Akif Inan Research and Training Hospital, SANLIURFA
[4] Department of Child and Adolescent Psychiatry, Isparta State Hospital, ISPARTA
[5] Department of Public Health, Faculty of Medicine, Akdeniz University, ANTALYA
[6] Department of Educational Sciences, Faculty of Education, Bayburt University, BAYBURT

Öz

Amaç

Bu çalışma kendine zarar verme davranışında bulunan ergenlerin internet kullanım alışkanlıklarını ve olası internet bağımlılığı ile siber zorbalık-mağduriyet düzeylerini değerlendirmeyi amaçlamıştır.

Gereç ve Yöntem

Bu bir olgu kontrol çalışmasıydı. Bu çalışma "kendine zarar veren ergenler" (n = 103) ve "Kontrol" (n = 103) olmak üzere iki grup altında incelenen 14-18 yaşları arasındaki toplam 206 ergeni kapsamaktadır. Polikliniğimize başvuran 14-18 yaş arası ergenlere Kendine Zarar Verme Davranışı Anketi uygulandı. Daha sonra her iki gruba İnternet Kullanım Formu, İnternet Bağımlılığı Envanteri ve Siber Mağdur ve Zorbalık Ölçeği (CVBS) uygulandı.

Bulgular

Olgu grubunun sosyal paylaşım sitelerini, sohbet odalarını, alışveriş sitelerini ve anlık mesajlaşmayı sağlayan siteleri anlamlı oranda daha fazla kullandıkları saptanmıştır.. Olgu grubunun interneti anlamlı oranda daha fazla iletişim kurmak için kullandığı ve anlamlı oranda daha fazla haftanın her günü internete girdikleri belirlenmiştir. Grupların siber mağdur ve zorbalık ölçeği toplam puanları ve alt ölçek puanlarına bakıldığında olgu grubunun anlamlı oranda daha yüksek puanlar aldıkları belirlenmiştir. Olgu grubunun anlamlı oranda daha fazla olası internet bağımlısı oldukları ve anlamlı oranda daha fazla riskli internet davranışları sergiledikleri bulunmuştur.

Sonuç

Çalışmamızdaki kendine zarar veren ergenlerin interneti riskli şekilde kullanmaları ve internet bağım-

lılığı açısından risk altında olmaları bu grubun sanal dünyadaki tehlikelere açık bir grup olduğunu göstermektedir. Bu durum göz önüne alındığında ergen ruh sağlığı polikliniklerinde değerlendirilen kendine zarar veren ergenlerin internet kullanım özelliklerinin sorgulanması koruyucu bir yaklaşım olacaktır.

Anahtar Kelimeler: İnternet, ergen, bağımlılık

Abstract

Objective
This study aimed to evaluate internet usage habits and possible internet addiction and the cyberbullying-victimization levels of adolescents who were found to engage in self-destructive behaviors.

Material and Methods
This was a case-control study. This study included a total of 206 adolescents between 14 and 18 years and they were examined under two groups as 'self-destructive adolescents' (n= 103) and 'Control' (n= 103). The Self-Harm Behavior Questionnaire (SHBQ) was administered to 14- to 18-year-old adolescents admitted to our outpatient clinic. Then The Internet Usage Form (IUF), Internet Addiction Inventory (IAI), and Cyber Victim and Bullying Scale (CVBS) were administered to both groups.

Results
The case group was found to use significantly more social networking sites, chatrooms, shopping websites, and instant messaging sites. The case group was determined to use the internet significantly more to establish communication and to access the internet significantly more every day. When the total scores and subscale scores of CVBS of the groups were examined, the case group was determined to have significantly higher scores. The case group was found to be significantly more possible internet addicts and to display significantly more risky internet behaviors.

Conclusions
The self-destructive adolescents in our study who use the internet in risky ways and are at risk for internet addiction show that this group is vulnerable to the dangers of the virtual world. Taking this into consideration, examining the internet usage habits of self-destructive adolescents who are assessed in Adolescent Mental Health Clinics would be a preventive approach.

Keywords: Internet, adolescent, addiction

Introduction

With the possibilities provided by the use of the internet, problematic human behaviors have emerged, and the negative consequences of the internet are now a matter of debate. Examples of such behavior are harming other people in online settings, the misuse of personal information, being subjected to sexual/verbal harassment, receiving hateful messages, cyberbullying, internet addiction etc (1-4).

Self-injurious behavior (SIB) is a direct and voluntary self-injuring behavior conducted once, occasionally, or repeatedly without the intention of death, causing tissue damage in varying degrees (5). It is reported that adolescents with SIB use the internet differently, for longer periods, and for social communication purposes. They are reported to make use of chatrooms and close online relationships more intensely, exhibiting risky internet behavior more often (6,7). Risky internet behavior includes sharing personal information on the internet, visiting websites that humiliate certain groups, and contacting/meeting in person people met on the internet (3). Online friends met via the internet may lead online sexuality. When the internet is used via social interactions, the addictive effect increases (8). It is reported that young people who are risky and pathological internet users have a higher frequency of injuring themselves and that internet addiction is associated with increased SIB risk (9, 10).

According to our knowledge, the relationship between cyberbullying and cybervictimization levels in adolescents with SIB has not been investigated until today. This study aims to evaluate internet usage habits and possible internet addiction and the cyberbullying-victimization levels of adolescents compared with a control group.

Material and Methods

Procedure

This was a case-control study. The case group was formed by 103 self-destructive adolescents taken from 14- to 18-year-old adolescents who were admitted to the Child and Adolescent Psychiatry Outpatient Clinic o fa University Hospital during in a-one-year period. The control group was formed by 103 adolescents who were admitted to the General Pediatric Outpatient Clinic of a University Hospital but were

assessed through an Inventory of Statements About Self-injury (ISAS) not to have injured themselves, and also had no psychiatric treatment or chronic disease diagnosis in their past medical history and no family history of psychiatric treatment. The first section of the ISAS was administered to 14- to 18-year-old adolescents admitted to our outpatient clinic. Their SIB and its frequency as well as defining and structural features of the behaviors were identified. After that, The Internet Usage Form, Internet Addiction Scale (IAS), and Cyber Victim and Bullying Scale (CVBS) were applied to both groups. The case and control groups are similar in terms of distribution of gender and age. Adolescents with diagnoses of psychotic disorder, pervasive developmental disorder, or mental retardation were excluded from the study. The study ethics committee approval was obtained from Süleyman Demirel University Medical Faculty Clinical Research Ethics Committee. Our work was suitable for research and publication ethics. The form and scales were filled out by the adolescents themselves, and written permission was received from the adolescents before application.

Measurements

Inventory of Statements About Self-injury: This is a scale with two sections, developed by Klonsky& Glenn (11). The first section asks about the lifetime frequency of 12 different SIBs "which are deliberate and with no intention of death." In this section, the participants are asked how many times each behavior was committed. Participants who "report one or more SIB" in the first section of the inventory (behaviors) are directed to the second section (functions) of the scale (11). The validity reliability test for the scale was conducted with students age 14-21 by Bildik et al. (12), and it has been reported that the scale is a valid and reliable measurement instrument for the assessment of SIB in the field of research and treatment.

Internet Usage Form: This is a 21-item question form created by the author of the present article with a view to identify the internet usage characteristics of the case and control groups. The internet usage characteristics assessed in the form are: age, gender, websites visited, the dominant purpose of internet usage, total time spent using the internet per week (on a daily and hourly basis), family supervision of internet usage, the presence of filtering software limiting internet use, the place/platform where the internet is most frequently used (home, school, internet cafe, mobile phone), the frequency and purpose of using internet cafes, risky internet behaviors, amount of time spent per day on social networks, the visitation of websites that encourage self-injurious behavior, and the presence of internet usage at home. The literature has been scanned by the authors with a view to identify risky internet behaviors, and the following behaviors are considered risky internet behaviors: Offering to meet in person with people met online, meeting in person with people met via online chats, making friends in chat rooms with strangers, sharing personal information through the internet, visiting websites to humiliate certain groups, and entering chat rooms intended for adults (3,13).

Internet Addiction Scale: The scale was developed by Nichols&Nicki (14), and its validity and reliability test was carried out in Turkey by Canan et al. (15) on 14- to 19-year-old Turkish youngsters. IAS is the 5-point likert-type scale with 31 questions and a single factor. It is aimed at identifying individuals that face internet addiction risk based on the diagnosis criteria suggested by Griffiths (16). In the test conducted by Canan et al. (17), the scale has been reduced to 27 questions and the scale's cut-off point has been identified as 81. Also, in our study, adolescents who scored 81 points or higher in the IAS were considered to be possibly internet-addicted.

Cyber Victim and Bullying Scale: The scale was developed by Cetin et al.(17), and its validity and reliability test was carried out on 14- to 19-year-old adolescents. The scale consists of two parallel forms with the titles Cyber Bullying (CB) and Cyber Victimization (CV), each one consisting of 22 questions. Participants report their cyber victimization and bullying statuses on a 5-point likert-type gradation by choosing between (1) Never, (2) Rarely, (3) Sometimes, (4) Usually, or (5) Always, on the "It Has Been Done To Me" part for cyber victimization and on the "I Have Done It" part for cyberbullying. The cyberbullying and victimization form consists of three sub-dimensions: Cyber Forgery (CF-10 items), Cyber Verbal Bullying (CVB-7 items), and Hiding Identity (HI-5 items). It is also possible to get a total score for each sub-dimension on the CVBS. Higher scores in the CB form of the scale indicate the higher frequency of behaviors including cyberbullying, and higher scores in the CV form of the scale indicate the higher frequency of cyber victimization.

Statistical Analysis

The research data was evaluated using the statistics package software SPSS 18.0. The numeric variables are presented in mean and standard deviation values, while the categorical variables are presented in number and percentages. Comparison of the case and control groups in terms of internet usage characteristics and the presence of possible internet addiction

was conducted by chi-square test, and comparison in terms of cyber victimization and cyberbullying scores was conducted by independent samples t test. The value for significance is taken to be p<0.05.

Results

The average ages for the case group and control group are 15.9±1.1 and 15.6+/-±0.9 respectively, which has not been found to be statistically significant (p=0.052). No significant difference in terms of gender was observed between the groups (p=0.193). Comparison of the case and control groups in terms of the websites they visit is provided in Table1.

It was found that the case group (n=53, 51.5%) used the internet significantly more for communication purposes compared to the control group (n=34, 33%) (χ^2 =7.183, p=0.007).It was found that the control group (n=44, 42.7%) used the internet significantly more in order to obtain information compared to the case group (n=16, 15.5%) (χ^2 =18.437, p<0.001). Going online every day was significantly higher in the case group compared to the control group (respectively; n=56 %54.4, n=27 %26.2, χ^2= 16.970, p<0.001). Going online for 40 hours or more per week was sig-

nificantly higher in the case group compared to the control group (respectively; n=13 %12.6, n=4 %3.9, χ^2=5.193, p=0.023). It was found that, compared to the case group, the control group's families place more limitations on internet use and monitor their children's usage (respectively; n=48 46.6%, n=63 61.2%, χ^2=4.395, p=0.036).

The frequencies at which the case group goes online in an internet cafe and/or via mobile phone (respectively; n=58 56.3%, n=38 36.9%, χ^2=7.803,p=0.005) and goes to an internet cafe everyday were significantly higher compared to the control group (respectively; n=7 6.8%, n=2 1.9%, χ^2=16.939, p<0.001). The frequency of spending 7 or more hours (per day) on social networking websites was found to be significantly higher in the case group than in the control group (respectively; n=28 30.4%, n=7 9.5%, χ^2=10.971, p=0.004). Comparison of the case and control groups in terms of internet usage characteristics and the presence of possible internet addiction are presented in Table 2. When the CBVS total scores and sub-scale scores of the groups are taken into consideration, it is observed that the case group scored significantly higher than the control group. (Table 3)

Table 1   The comparison of the case and control groups in terms of the websites they enter

Websites entered	Case (n: 103)		Control (n: 103)		χ^2	p
	n	%†	N	%†		
Social networking sites	92	89.3	74	71.8	10.052	**0.002**
Websites related to e-mailing	14	13.6	12	11.7	0.176	0.675
Websites with academic content	48	46.6	56	54.4	1.243	0.265
Websites related to self-injurious behaviour	5	4.9	3	2.9	0.520	0.471
Websites related to online gaming	30	29.1	20	19.4	2.641	0.104
Chat rooms	18	17.5	5	4.9	8.271	**0.004**
Websites with sexual content	9	8.7	5	4.9	1.226	0.268
Shopping websites	42	40.8	28	27.2	4.241	**0.039**
Betting websites	15	14.6	7	6.8	3.257	0.071
Websites related to reading the news, watching TV-video, listening to music	61	59.2	52	50.5	1.588	0.208
Websites that provide instant messaging	40	38.8	24	23.3	5.803	**0.016**

†Column percentage

Table 2 The assessment of the case and control groups in terms of internet usage characteristics and presence of possible internet addiction

Features	Case (n: 103)		Control (n: 103)		χ2	p
	n	%†	N	%†		
Presence of possible internet addiction	40	38.8	7	6.8	30.019	**<0.001**
Purpose for going to an internet cafe						
Playing games	28	27.2	21	20.4	1.312	0.252
Doing homework	45	43.7	48	46.6	0.176	0.674
Chatting	17	16.5	5	4.9	7.328	**0.007**
Home access to the internet	70	68.0	90	87.4	11.196	**0.001**
Use of filtering software	23	22.3	43	41.7	8.918	**0.003**
Offering to meet in person with people met online	23	22.3	10	9.7	6.098	**0.014**
Meeting in person with people met via online chatting	46	44.7	21	20.4	13.825	**<0.001**
Making friends with strangers through chatting	25	24.3	12	11.7	5.568	**0.018**
Sharing personal information with people met on the internet	20	19.4	5	4.9	10.243	**0.001**
Entering chat rooms intended for adults	21	20.4	6	5.8	9.590	**0.002**
Entering websites that are designed for humiliation purposes	20	19.4	4	3.9	12.073	**0.001**
Entering websites that encourage SIB	13	12.6	0	0.0	13.876	**<0.001**

†Column percentage SIB: Self-injurious Behaviour

Table 3 The comparison of the case and control groups in terms of CVBS scores

Cyber Victimization Bullying Scale	Case (n= 103)	Control (n= 103)	t	p
	Mean±Standard Deviation	Mean±Standard Deviation		
Cyber Victimization Scale Total Score	34.0 +/- 17.3	26.1 +/- 13.6	-3,594	**<0.001**
CV-Cyber Forgery Sub-scale Score	14.8 +/- 8.5	11.8 +/- 6.4	-2,850	**0.005**
CV- Verbal Bullying Sub-scale Score	10.9 +/- 5.8	8.3 +/- 3.9	-3,760	**<0.001**
CV-Identity Concealment Sub-scale Score	8.3 +/- 4.5	6.1 +/- 3.6	-3,798	**<0.001**
Cyber Bullying Scale Total Score	34.6 +/- 20.2	24.5 +/- 8.4	-4,670	**<0.001**
CB-Cyber Forgery Sub-scale Score	15.0 +/- 9.6	11.0 +/- 4.1	-3,830	**<0.001**
CB- Verbal Bullying Sub-scale Score	11.3 +/- 7.0	7.9 +/- 2.5	-4,686	**<0.001**
CB-Identity Concealment Sub-scale Score	8.3 +/- 5.1	5.6 +/- 2.1	-4,928	**<0.001**

CV= Cyber Victimization CB=Cyber Bullying

Discussion

It has been reported that adolescents who exhibit psychological problems and self-injurious behavior spend more time on the internet (18, 19). In line with the literature, the present study found that adolescents with SIB use the internet significantly more often (going online every day, going online for 40 hours or more per week).When the intense internet usage of these young people is taken into consideration, the internet can be considered an important area for the prevention of SIB. It has been reported in the literature that using the internet frequently is associated with high levels of cyber victimization and may lead to risky internet behavior such as meeting people met via the internet in person or getting into close relationships with them (3,20,21). It was observed that adolescents in the case group use the internet, exhibit risky online behavior, and experience cyber victimization more frequently. It might be thought that the adolescents with SIB in our study committed risky internet behavior by increasing the amount of their internet usage, and therefore experienced victimization more.

It has been reported that internet cafes, where uncontrolled content can easily be accessed, may pose a threat to adolescents and that socially undesirable usage purposes may be centered on these cafes (22). In the literature, there is no information about internet cafe usage of adolescents with SIB. For the first time, it has been found in our study that going to internet cafes every day is significantly more frequent in the adolescents in the case group. This finding shows how far from family supervision of internet usage these adolescents are. In adequate control might be leading these adolescents to the risks they can be exposed to due to unsupervised internet usage in internet cafes (23). We conclude from the internet cafe usage frequency of adolescents with SIB in our study that further studies assessing the psychosocial factors leading these young people to go to internet cafes are needed. One study observed that one of the factors predicting internet addiction was the place where the internet is used, and also found that internet addiction is more prevalent in individuals who access it via mobile phones and internet cafes than those who access it at home or school (24). Our own study found that adolescents in the case group have a significantly higher frequency of accessing the internet in internet cafes and/or via mobile phones, and that they significantly more often have Possible Internet Addiction. It might be argued that the unsupervised usage of the internet in internet cafes and via mobile phones and the lack of control mechanisms are the stepping stones that lead to internet addiction.

Due to the absence of filtering programs in internet cafes, adolescents are able to access inappropriate websites, or they might make contact with people dealing with child pornography in the chat rooms (22). It has been reported that adolescents who have the opportunity to go online everywhere via their mobile phones are more often exposed to aggressive/offensive demands, and their risk of sexual abuse victimization in the absence of familial control is elevated (25-27).When it is considered that the adolescents with SIB in our study more often went to internet cafes in order to chat, more often went online via mobile phones, and that family control over their internet use is significantly lower, it is concluded that these adolescents' risk of harassment in the virtual world is high.

One study found that the risk of online sexual harassment is 4 times higher for chat room users (28). It was found that the cyber-bullying/victimization levels of adolescents who use chat rooms is elevated, and that using chat rooms is a risk factor for internet addiction (29, 30). It has been reported that people who visit chat rooms experience a sense of belonging and being part of a group. It was found that adolescents using the virtual world to fulfill their need to be part of a group is an important risk factor for addiction (2). Instant messaging was found to be a factor that is associated with cyberbullying (29). One study reported that adolescents with SIB often use websites that provide instant messaging and chat rooms (2). In our study, it was found that the adolescents in the case group use chat rooms and websites providing instant messaging significantly more, and that they become cyber bullies/ cyber victims/possibly internet-addicted significantly more often. It might be considered that preferences related to internet usage (the usage of instant messaging sites and chat rooms) lead these adolescents towards risks (cyber-bullying/cyber victimization/possible internet addiction) in the virtual world.

It has also been reported that adolescents who use social communication sites intensely have identity problems, that this usage purpose is a risk factor for the development of problematic internet usage, and that it increases negative behavior associated with cyberbullying (31-33). Considering the fact that the adolescents with SIB in our study used the internet for social communication intensely and had PIA more, we may theorize that intense usage for social communication purposes may be a risk factor for the development of problematic internet use in these individuals. Adolescents with SIB are likely to be less proficient in establishing interpersonal relationships and may use the internet with a view to communicate with others (6, 19, 34). It was found that the adolescents in the

case group use the internet for social communication (frequent use of chat rooms, instant messaging sites and social communication sites) purposes more often. In addition, these adolescents use social communication sites significantly more intensely. It has been reported that individuals who need social support incline towards the internet to compensate for their problems (35). The factor leading the adolescents with SIB in our study could be their deficient social communication skills. It is reported that those who prefer online social interaction may use the internet excessively, and this situation can lead to cyclical aggravation of the existing psychosocial problems (8). It might be argued that working to solve deficiencies in their social communication skills through internet use is an unsuccessful coping strategy. When it is considered that social communication websites can be dangerous, and that adolescents in the case group more often become cyber victims, it may be thought that a primarily social communication purpose and an intense use of the internet brings these adolescents dangerously close to the risk of cybervictimization.

It is reported that individuals with internet addiction have higher risks of committing self-injury (36). Also, in a study conducted on adolescents in Turkey, it was observed that there is significant association between possible internet addiction and SIB (37). Our study found that adolescents with SIB more often have possible addiction, which is in support of the literature. This finding may be interpreted as showing that adolescents with SIB are at risk of developing internet addiction.

It has been found in many studies that SIB is associated with increased risk-taking behavior (38). It has been reported that adolescents with SIB exhibit risky online behaviors at a high level (39). In the studies to date, intense use of the internet and chat rooms were found to be significant predicting factors for risky internet behavior (21). It has been observed that the adolescents in the case group use the internet and chat rooms intensely, and that they commit all the risky internet behaviors assessed in our study significantly more often. In light of this information, it is possible to conclude that adolescents with SIB engage in risky behaviors in the virtual world alongside the actual world, and that the internet usage characteristics of these adolescents (usage frequency and the websites preferred) may contribute to their inclination towards risky internet behavior.

Our study found that adolescents with SIB use the internet more often and, more primarily, for social communication purposes. It also found that they more often choose risky places for using the internet, engage in risky online behavior more often, become cyber bullies/cyber victims/possibly addicted more often, and that family control of their internet usage is inadequate. It has been concluded from this information that clinicians should conduct a comprehensive assessment to identify the online activity types and levels of adolescents with SIB, evaluating the results of these activities and the factors responsible for them. It can be argued that the internet usage characteristics (internet usage frequency, place and purpose of internet use, websites preferred, and risky internet behaviors) of adolescents with SIB in our study can make them prone to cyber victimization and online harassment as well as lead them to internet addiction. However, due to the fact that our study was a case control study, it is not possible to make conclusions concerning cause-and-effect relationships between the internet usage characteristics of adolescents with SIB and their negative reflection in the virtual world. Further studies assessing these connections are needed.

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