

The Challenge of the Young Generation with the Virtual Crowd: True Loneliness

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Abstract

This article examined the relationship between high school students' problematic internet use and loneliness levels. Within the scope of the research, the quantitative research method was used to determine the addiction level of the participating high school students and the qualitative research method was used together to examine the relationship between high school students' problematic internet use and their loneliness in society. In this context, a total of 387 students studying in 9th, 10th, 11th and 12th grades in five public high schools in the 2018/2019 academic year in the centre of Kırıkkale province were surveyed. It was determined that 4.9% of the high school students participating in the survey, i.e. 19 students, were problematic internet users. Subsequently, 18 volunteer students were interviewed to examine the relationship between problematic internet use and loneliness. As a result of the interview, it was determined that high school students are not spiritually at peace with themselves; they are shy about expressing themselves in society and hide the time they spend on the Internet and what they do from family and friends. In addition, it was concluded that their problematic internet use negatively affects their family, friends, and relatives' communication and isolates them from society.

Keywords: Internet Addiction, Young Generation, Loneliness

Genç Neslin Sanal Kalabalıkla Zorlu Sınavı: Gerçek Yalnızlık

Özet (Türkçe)

Bu makalede lise öğrencilerinin problemli internet kullanımı ile yalnızlık düzeyi arasındaki ilişki incelenmiştir. Araştırma kapsamında katılımcı lise öğrencilerinin bağımlılık düzeyini belirlemek için nicel, lise öğrencilerinin problemli internet kullanımı ile toplum içerisinde yalnızlaşmaları arasındaki ilişkiyi incelemek için ise nitel araştırma yöntemi birlikte kullanılmıştır. Bu bağlamda öncelikle Kırıkkale ili merkezinde 2018/2019 eğitim öğretim yılında beş devlet lisesinde 9. 10. 11. ve 12. sınıf kademelerinde öğrenim gören toplam 387 öğrenciye anket çalışması uygulanmıştır. Ankete katılan lise öğrencilerinin % 4,9'u yani 19 öğrencinin problemli internet kullanıcısı olduğu tespit edilmiştir. Akabinde problemli internet kullanımı ile yalnızlık arasındaki ilişkiyi incelemek için gönüllü 18 öğrenci ile mülakat yapılmıştır. Uygulanan mülakat sonucunda ise lise öğrencilerinin ruhsal olarak kendileriyle barışık olmadıkları, toplum içerisinde kendilerini ifade etme konusunda çekingen oldukları ve internette geçirdikleri zamanı ve yaptıklarını aile ve arkadaşlardan gizledikleri tespit edilmiştir. Ayrıca problemli internet kullanımlarının aile, arkadaş ve akraba iletişimlerini olumsuz yönde etkilediği ve onları toplumdan uzaklaştırarak yalnızlaştırdığı sonucuna ulaşılmıştır.

Anahtar Kelimeler: İnternet Bağımlılığı, Genç Nesil, Yalnızlık



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Introduction

The thematic connection between youth and internet addiction is considered a social problem today, and it is known that studies on the subject have become widespread all over the world. The Internet is a constantly renewed and developing platform with different features, such as allowing content presentation with 2.0 technologies, increasing interaction levels and providing various opportunities for self-development and expression (Guth, 2010). Every day, it is aimed to make life easier by adding a new one to technological innovations in the field of the Internet.

In this context, people prefer rapidly developing technology in many areas of life, such as accessing information, handling official affairs and communicating. In addition, for individuals, the Internet is both a socialising area and a means of having a pleasant time for every member of society, whether children, young people or adults; good conversation, entertainment, and games are essential in personal development and being a part of society. These activities, previously carried out face-to-face, are now presented digitally in virtual environments (Ünal & Korkmaz, 2023; Goldfarb & Prince, 2008).

The Internet has become a phenomenon in which most people around the world, especially the young generation who are open to innovations, spend a significant part of their time by placing it at the centre of their lives, thanks to the fact that it eliminates the concept of time and space and offers people various conveniences and opportunities. Statistical data also confirm this situation. For example, while the internet usage rate among individuals between the ages of 16-74 in Turkey was 47.4% in 2012, it was 88.8% in 2024 (TÜİK, 2024). In this way, the increase in the time spent on the Internet daily brings the risk of internet addiction.

This concept, which is generally expressed as 'internet addiction' in Turkish, corresponds to various concepts such as problematic internet use, excessive internet use, irregular internet use and internet abuse (Avşaroğlu & Akbulut, 2020; Caplan, 2010; Arisoy, 2009) in the international literature. The common point that all these concepts have is staying on the Internet for a long time and being unable to control internet use. Of course, not all individuals who use the Internet, which has entered every aspect of life, can be considered Internet addicts or problematic Internet users. For this, various factors such as the duration of Internet use, reason, and purpose should be considered. In this context, the diagnostic criteria for internet addiction were first proposed by Young in 1998. Young identified eight criteria as excessive mental effort related to the Internet, increasingly higher rate of Internet use, failure to control Internet use, restlessness or anger in case of reduction or complete cessation of Internet use, staying on the Internet for more time than planned, lying to others (family, friends, therapist, etc.) about the time spent on the Internet, using the Internet to escape from problems or to avoid negative emotions such as helplessness, guilt, depression, anxiety, experiencing difficulties with family, school, work and friends due to excessive Internet use. According to Young, meeting five of these eight criteria is sufficient for a person to be diagnosed with internet addiction (Young, 1998).

Problematic excessive use of the Internet and the problems caused by this use affect almost all segments of society, regardless of whether they are children, young or old. However, especially young people attract more attention. According to Öztürk, Odabaşoğlu, Eraslan, Genç and Kalyoncu (2007), the increase in the number of studies on abuse and addiction with the rapid spread of the Internet in developed countries such as Western Europe and the USA in the early days, and now almost in every region of the world, maybe an indication that internet addiction has also become widespread. Besides that Öztürk ve his friends also state that internet addiction,

which can be seen in all age groups, has become a severe risk factor, especially for individuals between the ages of 12-18.

Because youth, which is defined as a life stage, means a stage of socialisation that is prepared for the CV through the acquisition of competencies for work, profession and civic participation in the industrial society model, and together with value orientations, they are the building blocks for one's psychosocial identity and social status (Heinz, 2002). Therefore, individuals' personality, identity, and character development is shaped according to social structure. It may become difficult for young individuals to cope with an uncontrollable complex situation such as internet addiction in a period when they have to form their personality and identity on the one hand and respond to the expectations of society on the other hand (Kelleci, 2008).

Uncontrolled use of the Internet, which appeals to the pleasure of young people, who are more open and willing to keep up with innovations than other segments of society, brings psychosocial problems. For example, being deprived of the Internet causes excessive anger, resentment and aggression in individuals. Thus, individuals' work, family and social lives are negatively affected, and as a result, permanent disorders may occur (Arısoy, 2009). In addition to this, individuals neglecting, postponing or failing to fulfil their responsibilities in their private lives due to problematic internet use and the emergence of physical ailments (Xie et al., 2017; Young, 2004) have made the discussions on internet addiction widespread. In fact, with its sociological dimension (Kaliba et al., 2022), it may even cause individuals to have problems adapting to society and becoming lonely due to alienation from society to resurface. In other words, while today's youth is in search of new relationships and a different world in virtual environments to catch up with age and be aware of innovations, they become lonely by moving away from the people who are with them in the real world (Feindel, 2019; Özdemir et al., 2017; Güleç, 1991).

The issue of alienation from society and the resulting loneliness, which has recently attracted more and more attention, is now considered a structural and social phenomenon rather than a private and personal one. According to Yalçın and Dönmez (2017), Fromm and Marcuse evaluated the concept of alienation from a social psychological point of view and handled it within the framework of the interaction between the individual and social life. Marcuse associated alienation with technological changes and consumption habits in the modern world. According to him, as a residue of the emergence of new and artificial needs, the individual is no local no languish between natural and synthetic

Today, communication and information acquisition have changed compared to previous years. Digitalisation has increased in everyday life, and individual face-to-face conversations and contacts have become less (Konrath et al., 2011) and less necessary. Thus, the more flexible form of communication has transformed the communication of family, relatives and friends, almost replacing face-to-face communication and decreasing personal interaction (Açık et al., 2021). Therefore, due to the radical and sharp changes in social life brought about by the rapidly developing information technologies due to the information age we are in, distant and foreign worlds are getting closer, while friends, neighbours and relatives are getting farther away and individuals are becoming lonely (İşliyen & İşliyen, 2020).

According to Fromm (1996), man has mastered nature within the capitalist system. In this way, he became free, broke from tradition, and became individualised. However, gaining his freedom deprived him of feelings of belonging and security. As a result, he became alienated from the people around him, powerless and lonely. Since loneliness is a significant phenomenon in human existence, it is constantly on the agenda in connection with various psychological events

at every age. Loneliness, which characterises the experience of social coexistence, has both positive and negative meanings. The loneliness caused by behavioural addiction as a result of unconscious technology use and consequent alienation from society has nothing to do with positive loneliness (Peplau & Perlman, 1982), which means being alone by getting away from the overwhelming hustle and bustle of life and resting in deserted and peaceful environments. On the contrary, the loneliness referred to here is related to loneliness with its negative meaning. It refers to the longing in our minds and hearts for the people who love, appreciate or criticise us, whom we trust and live together, sharing happiness and sadness.

Especially in modern societies, people have to cope with the feeling of loneliness, which has a negative meaning. To keep up with the speed of technology that changes and transforms society and to adapt to it, the information acquisition and communication behaviours that arise as a result of the sharp changes in the social life of societies reduce the importance and commitment given to family structures, as well as marriages, friendships and relationships become short-term and inconsistent (Şentürk Dızman, 2019; Çiftçi, 2018; Güleç, 2018). However, accumulating people who cannot replace each other and having healthy communication are the most critical factors in leading a happy life. If this is lost or lonely, gaps occur in the soul, which can lead to the emergence of physiological and psychological disorders.

In this direction, it has become necessary to determine the prevalence of risky internet use by the young generation to carry out preventive and curative studies and obtain data on the subject, that is, to carry out infrastructure studies. In the literature, there are studies on internet addiction and various variables such as interpersonal relationship sensitivity and loneliness, loneliness levels and different variables, as well as attachment to school and alienation from school (Malas & Arıkan, 2024; Serious et al., 2024; Mızrak, 2021). However, there has not been a study that examines the relationship between internet addiction and loneliness with a mixed method using both quantitative and qualitative research methods. It is thought that it will make an important contribution to the literature with this aspect.

The original aspect of this study is to evaluate whether students who have problematic internet use are aware of internet addiction and the problems caused by internet addiction. In addition, it is predicted that the data and information obtained about the prevalence of internet use and some demographic and descriptive information of high school students participating in quantitative and qualitative studies will contribute to the literature. In addition, it is hoped that young people who spend most of their time in virtual environments by attributing different meanings to the Internet will support preventive and curative studies to improve the communication and social skills of young people who feel lonely in crowds. In addition, it is essential for the infrastructure studies mentioned to help raise awareness about the controlled and moderate use of the Internet in all segments of society.

For this reason, the aim of this study is to examine the relationship between problematic internet use of high school students and feelings of loneliness. In line with this aim, “Is there a relationship between problematic internet use and loneliness in high school students?” the answer to his question will be sought. The sub-problems of the study are as follows. 1. Are students with problematic internet addiction physically and spiritually at peace with themselves? 2. Are students with problematic internet addiction self-confident? 3. Do students with problematic internet addiction have problems with their surroundings? 4. Are students with problematic internet addiction becoming lonely?

Method

In this study, a mixed method in which quantitative and qualitative research methods were used together was preferred to examine the relationship between risky internet use and isolation and loneliness of high school students. Because quantitative research methods and analyzes generally focus on measurable and objective information, the data are lacking in both depth and detailed interpretation. For this reason, strengthening quantitative research with qualitative research methods can add depth to the research (İslamoğlu & Alnıaçık, 2014). Qualitative content analysis studies include descriptive and explanatory questions, and it is aimed to reach the invisible hidden messages as well as the visible dimensions of the content (Yüksel, 2019). For this reason, within the scope of the research, quantitative research method was used to determine the addiction level of high school students, and qualitative research method was used to examine the relationship between problematic internet use of high school students and their alienation from society.

Participants

The quantitative research part of the study consists of 387 students from the 9th-10th-11th-12th grades attending five public high schools in the centre of Kırıkkale province in the 2018/2019 academic year. Stratified sampling was preferred in the study. Because the population of the research consists of subunits of different school and grade levels. Stratified sampling is used when there are lower layers in a universe with defined boundaries (Yıldırım & Şimşek, 2006) and it is a sampling in which many layers and individuals from these layers are randomly selected (Christensen et al., 2015). Table 1 below shows the demographic characteristics of the high school students who participated in the survey.

Table 1. Demographic characteristics of high school students who participated in the survey

Sociodemographic Characteristics (n=387)	n (%)
Gender	
Female	198 (51.2)
Male	189 (48.8)
School Type	
Science High School	79 (20.4)
Fine Arts High School	79 (20.4)
Anatolian High School	82 (21.2)
Vocational and Technical Anatolian High School	75 (19.4)
Imam Hatip High School	72 (18.6)
Grade Level	
9th Grade	97 (25.1)
10th Grade	106 (27.4)
11th Grade	94 (24.3)
12th Grade	90 (23.3)
Age	
14 years	20 (5.2)
15 years	95 (24.5)
16 years	101 (26.1)
17 years	119 (30.7)
18 years and older	52 (13.4)
Internet Access Location	
Phone	208 (53.7)
Home	162 (41.9)
Internet Cafe	5 (1.3)

Data Collection

Personal Information Form

Demographic data such as gender, school, class, age, where the high school students connect to the Internet, how much time they spend on the Internet on average per day, the education level of the participants' parents, and the socio-economic level of the family were obtained. Demographic data consists of a total of 9 questions.

Young Internet Addiction Test Short Form

The first version of the scale, which was adapted into a short form by Pawlikowski, Altstötter-Gleich and Brand (2013), was developed by Young (1998) and translated into Turkish by Kutlu, Savcı, Demir, and Aysan (2016). Young Internet Addiction Test Short Form is a five-point Likert-type scale. In this self-assessment scale, which consists of a total of 12 questions, there are never (1), rarely (2), sometimes (3), often (4) and always (5) options. Although no item scored in reverse, the higher the scores obtained from the scale, the higher the level of internet addiction. According to the reliability test result of YIBT-KF, Cronbach's alpha coefficient was found to be 0.91 for university students and 0.86 for adolescents. The scale is one-dimensional (Kutlu et al., 2016). The Cronbach's alpha coefficient obtained as a result of the reliability test conducted within the scope of this study was determined to be 0.858.

Interview Study

As a result of the quantitative analysis, a literature review was first conducted during the preparation of the semi-structured interview form, which was prepared to be applied to students who were thought to have problematic internet use. Then, the interview form was prepared by taking the diagnostic criteria and expert opinions specified in Young's internet addiction scale, which was created by adapting the substance addiction criteria in the Diagnostic and Statistical Manual of Mental Disorders (DSM-4) (APA, 2013) for internet use.

The study consists of 12 questions directed at high school students in the problematic internet user classification who voluntarily participated in the interview. The first question asked students to introduce themselves to make them comfortable and ensure they gave sincere answers. Subsequently, the interview study was completed based on the topics listed below.

- Frequency of time spent on the Internet exceeding the planned time
- Frequency of spending time on the Internet instead of neglecting the family
- Frequency of damage to school and course-related studies due to time spent on the Internet
- Frequency of hiding or becoming defensive when someone asks about something done on the Internet
- The frequency of aggressive and angry behaviour in case of being disturbed by someone while spending time on the Internet
- Frequency of sleep deprivation due to time spent on the Internet, frequency of dreaming of connecting to the Internet when away from the Internet
- Frequency of prolonging the Internet for a few minutes at a time
- Frequency of unsuccessful attempts to reduce time spent on the Internet
- Frequency of trying to hide the time spent on the Internet
- Frequency of preferring to spend time on the Internet instead of face-to-face communication
- The frequency with which the depressed and irritable mood when unable to connect to the Internet suddenly disappears when connected to the Internet

Data Analysis

The questionnaire data were analysed using SPSS 23.0 statistical software, and the qualitative data were analysed using the content analysis method. In the analysis phase, the reliability test of the questionnaire was performed first. Accordingly, Cronbach's alpha coefficient obtained in the analysis was determined to be 0.858.

In the next stage, frequency analyses of the demographic characteristics of the students participating in the survey were made. Since the data obtained from the analysis did not show normal distribution, the study was continued using the nonparametric analysis method. In this direction, the Mann-Whitney U Test was used to divide gender into two groups, while the Kruskal-Wallis H Test was used to compare the measurements of more than two groups. While a significant relationship was found between the total score of internet addiction and the variables of age, grade and duration of internet use, no significant relationship was found between the total score of internet addiction and the variables of gender, school, family income level, parental education, and place of internet use.

To determine the level of Internet addiction, the self-assessment feature of Young's Internet Addiction Test Short Form (YIBT-KF) applied in the study was utilised. Accordingly, this scale consists of 12 items, each scored 1-5, with the lowest score being 12 and the highest score 60.

Based on Young's scoring system, internet addiction was divided into three categories: 12:-29 points for the average internet user category, 30-47 points for the occasional problematic internet user category and 48-60 points for the frequent problematic internet user category.

Table 2. Descriptive statistics of internet addiction level

Internet Addiction Level	n (%)
Average Internet User	249 (64.3)
Occasionally, Problematic Internet User	119 (30.7)
Frequently Problematic Internet User	19 (4.9)

According to Table 2, which was formed in line with this classification, it was determined that 249 high school students, with a rate of 64.3%, were average internet users, 119 students, with a rate of 30.7%, were occasional problematic internet users and 19 students with a rate of 4.9% were frequently problematic internet users. Thus, 19 students with risky internet use constituted the target group of the interview study to be conducted to examine the relationship between internet addiction and loneliness in high school students who are problematic internet users.

In this research, quantitative analysis, built on numerical, measurable data, was supported by qualitative research to make detailed comments and examine the behaviour exhibited more deeply. Content analysis, a rapidly developing and prominent social sciences research technique, has a long history of use in sociology, psychology, communication, journalism and business. This systematic, objective and qualitative message analysis technique is used for human-coded and computer-coded analyses (Neuendorf, 2017). Qualitative content analysis is based on a systematic analysis of written or visual material (Aziz, 2015). Thus, within the framework of qualitative content analysis, some categories are formed from the themes considered necessary in the text, and the coding and categorisation system prepared regularly enables the development of new theories and models (Gül & Nizam, 2021). In qualitative content analysis studies, there are descriptive and explanatory questions. In this context, the researcher using the content analysis technique can analyse the content of the texts, documents, documents, and themes objectively, objectively and verifiable within the framework of certain rules (Fiske, 1996).

This study used a quantitative research method to examine the relationship between internet use and loneliness in high school students who are frequently problematic internet users identified using quantitative research method. In general, it was aimed at high school students answering the interview questions sincerely, and these answers were analysed in depth. Within the scope of this goal, the data obtained in line with the answers given by the students to semi-structured open-ended questions were analysed using the content analysis method. Categories and codes were created from the data obtained from the analysis. In this way, the data received from the research were quantified and presented in tables and graphs, and necessary evaluations were made. In this study; two themes were identified: the psychological dimension and the social dimension. Five categories were created; physical peace, spiritual peace, self-confidence in expressing oneself, preference for spending time with friends and acquaintances and having problems with the environment. Fourteen codes emerged in all categories.

Findings

This section includes the analyses and assessments of the data obtained from the qualitative research conducted. Before the analysis of the interview study, the table below shows the descriptive analysis of the demographic characteristics of 19 students who are frequent

problematic internet users based on their answers to demographic questions in the questionnaire applied to them.

Table 3. Demographic characteristics of high school students in the category of frequent problematic internet users

Sociodemographic Characteristics (n=19)	n (%)
Gender	
Female	8 (42.1)
Male	11 (57.9)
School Type	
Science High School	3 (15.8)
Fine Arts High School	8 (42.1)
Kırıkkale High School	6 (31.6)
Vocational and Technical Anatolian High School	2 (10.5)
Grade Level	
9th Grade	3 (15.8)
10th Grade	10 (52.6)
11th Grade	1 (5.3)
12th Grade	5 (26.3)
Internet Access Location	
Home	4 (21.1)
Internet Cafe	1 (5.3)
Phone	12 (63.2)
School	1 (5.3)
Other	1 (5.3)
Daily Internet Access Duration	
0-2 hours	1 (5.3)
3-5 hours	5 (26.3)
6-8 hours	8 (42.1)
9-11 hours	2 (10.5)
More than 11 hours	3 (15.8)
Income Level	
Low	2 (10.5)
Medium	12 (63.2)
High	5 (26.3)
Mother's Education Level	
Illiterate	1 (5.3)
Primary Education	4 (21.1)
High School	11 (57.9)
Undergraduate	2 (10.5)
Postgraduate	1 (5.3)
Father's Education Level	
Illiterate	-
Primary Education	2 (10.5)
High School	9 (47.4)
Undergraduate	4 (21.1)
Postgraduate	4 (21.1)

According to the results of the descriptive analysis of high school students in the category of frequent problematic internet users in Table 3, in the analysis of gender variable, 11 of 19 risky internet users are male, and eight are female. With a slight difference, male students are more at risk than female students. In the analysis of the class variable, 10 of the 19 students who are risky internet users are in the 10th grade, which constitutes 52.6% of the majority, and they are in the first rank. In the analysis of the connection point to the Internet variable, 12 of 19 students, in other words, the majority of them with a rate of 63.2%, connect to the Internet via mobile phones. Nowadays, it is thought that most children from primary school age have smartphones and internet packages, and the opportunity to connect to the Internet anytime and anywhere increases the risk of internet addiction. If we look at the descriptive analysis of the daily Internet usage time variable, eight students, who constitute the majority of 19 frequent problematic Internet users, spent 6-8 hours on the Internet daily, with a rate of 42.1%. In the analysis of the family income level variable, the family income of 12 of the 19 students who were frequent problematic internet users was at the middle level with a rate of 63,2%. In the analysis of the mother and father education variable, the mother of 11 of the 19 students with risky internet use is in the first place as a secondary education graduate, with a rate of 57.9%. The father of 9 of the 19 students who are frequently problematic internet users is a secondary education graduate with a rate of 47.4%.

According to the results of the qualitative research method analysis, the students who were in the problematic internet user category as a result of the scoring and who agreed to participate in the interview stated that they spent time on the Internet for reasons such as playing games, listening to music, sharing videos and pictures, shopping and using social media. They stated that they mostly use WhatsApp, Instagram and Facebook applications. It seems that the Internet, which offers the opportunity to communicate in different ways such as text, voice or video chat, can be preferred by young people because it opens up space for having a good time and having fun.

Physical and Spiritual Peace

Table 4. Findings related to the category of physical and spiritual peace with themselves of the interview participants

Harmony Type	Codes	Participants
Physical Harmony	Finds oneself beautiful/handsome	K1, K3, K6, K7, K8, K10, K15, K16, K18
	Finds oneself unattractive	K2, K5, K9, K11, K12, K13, K14, K17
	Varies according to the situation	K4
Mental Harmony	Positive thinking	K6, K7, K15
	Negative thinking	K1, K2, K4, K8, K11, K12, K14
	Varies according to the situation	K3, K5, K9, K10, K13, K16, K17, K18

As seen in Table 4, out of the 18 students who participated in the interview, eight found themselves ugly/unattractive in physical peace.v 15 students stated that they were not at peace with themselves in the dimension of spiritual peace or that it varied according to the situation.

In addition, they stated that their moods change very quickly and that they are usually angry and cannot control their anger. In this way, it is possible to evaluate the rapidly changing mood and lack of anger control together with the adolescence period they are in.

Self-confidence

Table 5. Findings related to the category of interview participants' self-confidence to express themselves in society

Codes	Participants
Confident	K1, K3, K4, K6, K11, K12, K13, K16, K17
Withdrawn, shy	K8, K9, K10, K14, K15
Varies according to the environment	K2, K5, K7, K18

In addition, 9 out of 18 students, i.e. half of them, said that they express themselves easily in society. In contrast, the other half said that they are introverted and timid or that it changes according to the environment. As given in Table 5, half of the students in the problematic internet user category may be considered to have problems expressing themselves and be hesitant in face-to-face communication, which is why they turn to internet use.

Preference to spend time with friends and acquaintances

Table 6. Findings related to the category of interview participants' preference for spending time with friends and acquaintances

Codes	Participants
Online	K1, K2, K3, K4, K8, K11
Face-to-face	K5, K6, K7, K9, K10, K12, K13, K14, K15, K16, K17, K18

While 6 out of 18 students prefer to spend time on the Internet, 12 stated that they care about face-to-face communication. According to Table 6, female students prefer to spend more time on the Internet than male students. Male students, on the other hand, like face-to-face communication. This preference is because face-to-face communication is more fun and beautiful. In contrast, they said that online communication becomes boring after a while, that they cannot share everything in virtual communication and that they usually talk about happy moments.

Problems with the Environment

Table 7. Findings related to the category of experiencing problems with the environment as a result of internet use of the interview participants

Codes	Participants
Experiences problems with family	K1, K2, K7, K8, K9, K10, K11, K12, K14, K15, K16, K17, K18
Lacks awareness of others	K3, K4, K6
No negative impact	K5, K13

In Table 7, 16 of the 18 interview participants with problematic internet use said that they had problems with their families due to internet use and that it caused their communication to weaken. At the same time, two students answered that they did not have such a problem.

In addition, 'Do you hide the time you spend on the Internet and what you burn from your family and friends? To answer the question, 'Do you hide the time you spend online and what you do online from your family and friends?' Ten interview participants said they hide their time online and what they do from their family and friends. Again, to the question, 'Do you feel that you are socialising with the communication you establish on the Internet, or do you feel that you are moving away from society?' Seven students stated that they felt they were moving away from the society.

Discussion and Conclusion

The study examined the relationship between the prevalence of problematic internet use in high school students and the feeling of alienation from society and loneliness. For this purpose, firstly, the internet addiction levels of high school students studying in five public high schools in Kırıkkale were determined within the framework of three categories based on the scores they received from the internet addiction scale. In previous studies conducted in various countries of the world, it is possible to see entirely different rates of problematic internet addiction levels that support each other or are opposite. For example, Shek and Yu (2012) applied Young's 10-item internet addiction test in their study on adolescents in Hong Kong and classified 26.4% of the participants as internet addicts. Lin (2020), in his research, aiming to examine the prevalence of internet addiction among secondary school students in Taiwan and to identify psychosocial risk factors during the COVID-19 outbreak, found the prevalence of internet addiction to be 24.4%. Mousavi (2020), who also investigated the prevalence of internet addiction and the use of virtual social networks in Iranian adolescents and young people, found the overall prevalence of severe internet addiction to be 2.4%.

According to the results of the questionnaire applied within the scope of the study, the proportion of high school students in the category of frequent problematic internet users in the third place with high scores is 4.9%. In other words, 19 of the 387 surveyed students were risky internet users. The majority of the students who participated in the survey, 249 students, were included in the average internet user classification in the first place with a rate of 64.3% and were excluded from the risky category. The remaining 119 students were classified as occasional problematic internet users with a rate of 30.7%. Considering the continuous and rapidly increasing internet use, it is predicted that the students in the second category of occasional problematic internet users are also at risk.

After the students with risky internet use were identified this way, some demographic characteristics obtained from the questionnaire study's demographic questions section were examined to get more detailed information about them. Thus, it was determined that 11 of the 19 students with problematic internet use in our study were male, with a rate of 57.9%, and 8 of them were female, with a rate of 42.1%. Mousavi (2020) obtained a similar finding and stated that the rate of boys with severe internet use was 2.9% while the rate of girls was 2.2%. We can say that male students are more at risk, albeit with a slight difference between male and female students. However, here, the possibility that the purpose of using the Internet for female and male students may also make this difference can also be considered.

Liang, Zhou, Yuan, Shao, and Bian (2016) found a similar finding in a questionnaire study conducted by Liang, Zhou, Yuan, Shao and Bian (2016) on 1715 adolescents studying in 6th-

8th grades in China to investigate the role of gender in the relationship between internet addiction and depression. Accordingly, it was concluded that in male adolescents, depression was the cause of internet addiction and supported the mood enhancement hypothesis. In contrast, in female adolescents, internet addiction caused depression and supported the social displacement hypothesis. In addition, it was determined that males and females have different behavioural patterns and internet usage purposes. It was concluded that men, who were more likely to use the Internet for pleasure, were less likely to surf the Internet to search for information compared to women. Although men and women tend to surf the Internet alone, men are likelier to go online with friends than women.

Reasons such as easy access to devices that we can connect to the internet, increased purchasing power and changing priorities play an essential role in the increasingly widespread use of the Internet. For example, smartphones, one of the most prominent electronic devices for internet use, are no longer a luxury and are now in the hands of every individual from seven to seventy. For this reason, individuals can connect to the Internet and spend time in virtual environments at any time, regardless of time and place. However, these electronic devices, which offer the opportunity to use time better and make life easier, also bring some dangers. In other words, while the Internet makes life easier on the one hand, on the other hand, it causes people to use it more and more every day and makes them dependent on it. As a matter of fact, in our study, the majority of the 19 students who are in the position of risky internet users, i.e. 12 students with a rate of 63.2%, stated that they connect to the Internet via smartphones in the first place, four students with a rate of 21.1% in the second place stated that they connect from home. In contrast, the remaining students connect from internet cafes, schools and other areas.

A study that found a positive relationship between the ease of access to devices to connect to the Internet and internet addiction was conducted in Morocco. In this study, Mohamed and Bernouss (2019) administered sociodemographic questions and Young's internet addiction scale to 305 Moroccan high school students to examine the prevalence of internet addiction and its possible relationship with academic performance and other sociodemographic factors. As a result of this quantitative study, they found that there is a 15.80% prevalence of internet addiction among Moroccan high school students. They also found that there was a significant correlation between internet addiction and low academic performance, ease of computer and internet access, being female, spending excessive time on the Internet and having parents with low education levels.

Considering the daily internet usage time, 8 of the students with risky addiction level use the Internet between 6-8 hours a day with a rate of 42.1%; three students, with a rate of 15.8%, use the Internet for more than 11 hours a day and two students with a rate of 10.5% use the Internet for 9-11 hours a day. In this context, young people who spend most of their day on the Internet sacrifice their primary needs, such as sleeping and eating. This situation reduces their quality of life even though they do not realise it. Due to their developmental stage and the period they are in, these young people spend 7-8 hours a day at school and need to sleep for an average of 8 hours. In addition, they also have social needs such as eating, spending time with friends and other people, doing sports and having fun. If we evaluate in the context of the results we have obtained, it is seen that young individuals who spend 6 hours or more a day on the Internet compromise their private lives and their primary needs.

Ferraro, Caci, D'Amico and Di Blasi (2007), who reached a similar conclusion with the data we obtained, applied the Italian version of Young's Internet Addiction Test online to 236 Italian chatters regarding gender, age and occupation. The results revealed that young users were more at risk for Internet addiction than adults and perceived that Internet use compromised the social

and personal quality of their lives. Similarly, working internet users perceive their social and individual quality of life as compromised more than students. In addition, night-time users are more at risk of developing an internet addiction disorder, reducing their personal quality of life and disabling their time control.

In this framework, 11 of the 18 students who participated in the interview stated that they were physically at peace with themselves, while seven were not. Mentally, while seven students were at peace with themselves, 11 indicated they were not at peace with themselves. In addition, these students described their mental state as anxious, questioning and angry and said that they suddenly got angry and could not control it. In the emergence of this situation, the symptoms of adolescence undoubtedly affect the sudden changes in the emotional states of high school students at a time when adolescence and youth are intertwined. Because adolescence causes rapid physiological changes and differences in body structure, adolescents may have difficulty adapting to this rapid change in their bodies. They may show sudden outbursts and reactions to those around them because they cannot adopt these changes (Arikan et al. 2013). In addition, the fact that young people are not at peace with themselves physically and spiritually constitutes a severe obstacle to their communication with other people. For this reason, they become dependent on the Internet, which they use to establish relationships they cannot establish in reality and to develop their skills in this direction. As a result, it causes different problems, such as further alienation from society and a sense of loneliness.

In addition, half of the 18 students who participated in the interview stated that they could easily express themselves in society. In contrast, the other half said they have problems expressing themselves wholly or partially because communicating and interacting with others in society is among individuals' most critical social needs. Today, the widespread use of the Internet for chatting and communicating among young people is perceived as providing the opportunity to express themselves in society, especially for young individuals. This situation may be a reason for young individuals to use the Internet more. It is also an opportunity for those who cannot express themselves in society because the shyness in face-to-face communication can be replaced by self-confidence in the virtual environment. Kring, Davison, Neale and Johson (2007) reached a similar result in their study. They suggested that individuals who use mobile phones excessively have low self-esteem and that these individuals aim to increase their self-esteem by using mobile phones frequently.

Among the 18 students asked about their preference between spending face-to-face time with friends and on the Internet, six (one-third) preferred to spend time, while 12 (two-thirds) said they care about face-to-face communication. Most students stated during the interview that they use the Internet for reasons such as having fun, playing games, and watching videos. They do not trust communication and individuals in the virtual environment. However, they stated that most of their friend groups prefer to communicate through social media applications. When they stay away from these applications, they feel obliged because they are out of their friend groups. In this context, the fact that they want to communicate face to face when they want to share sadness or happiness indicates that they prefer mutual interaction to socialise and achieve social harmony.

In addition, in our study, although it was not in the students' expressions, the underlying reason young adolescents want to spend time on the Internet instead of face-to-face communication with their friends may be social anxiety, fear of having problems with other people and shyness. In the virtual environment, individuals can use fake names and have the opportunity to hide their identities, which encourages them to communicate with other people or express their ideas quickly. For this reason, it is thought that individuals who have problems with secure

attachment, who cannot communicate easily with their family and friends, who avoid being exposed to the criticism of people around them, who prefer loneliness due to shyness and timidity, spend time on the Internet because they seek communication or socialisation in virtual environments that they cannot establish in real life.

Some studies support and oppose this idea. For example, Zorbaz and Tuzgöl Dost (2014) conducted a hierarchical regression analysis to determine the predictor variables for high school students' problematic internet use. They found that fear of negative criticism, social avoidance and restlessness in general situations, social avoidance and restlessness in new situations, commitment, trust identification, self-disclosure, and loyalty variables significantly predicted high school students' problematic internet use levels.

On the other hand, Caplan (2007), in his developed and tested model of problematic internet use, suggests that individuals' psychosocially strong state and beliefs about face-to-face and online interpersonal communication are essential cognitive determinants of problematic internet use. His study on this subject resulted in findings supporting the hypothesis that the relationship between loneliness and online social interaction preference is spurious and that social anxiety is a confounding variable.

In response to the question of how problematic internet use affects family relationships, 13 of the 18 students who participated in the interview said that they had problems with their families as a result of excessive internet use and that it caused poor communication, 3 of them said that they had problems because the people around them did not realise it. Two students answered that they did not have such a problem. Karagülle and Çaycı (2014) also have explanations supporting this situation. According to them, while the Internet develops new forms of friendship, it prevents people from spending less time with their family and friends and communicating with each other.

While answering this question, the students accepted that they use the Internet excessively and excessively in the dimension of addiction. Most students stated that they spent time on the Internet on their smartphones or computers, did not leave their rooms and communicated even with their families in the same house via messages. For this reason, they stated that they had problems with their families and not only that, they had a decrease in their academic achievement at school. They encountered various physical issues such as back and lower back pain and eye complaints because they were constantly sitting, and they exhibited aggressive and angry behaviours when they were deprived of the Internet.

Studies have been conducted on the problems faced by young individuals as a result of uncontrolled internet use, and these have reached similar results to the findings obtained in our interview study. In this context, in a cross-sectional study conducted in Malaysia to investigate the effects of internet addiction on young adults, it was found that there were six effects, five of which were negative and one of which was positive, with a sample of 200 young adults. According to the Mann-Whitney U test results it shows that adults who overuse the Internet, believing that it can help them improve their skills to do their jobs better, encounter some problems such as interpersonal problems, behavioural problems, physical problems, psychological problems, work problems in their daily lives (Alam et al., 2014).

In another study, Koç (2011) applied the SCL-90-R scale and Addicted Internet Users Inventory to 174 university students in Turkey to examine the relationship between Internet addiction and psychopathology in university students. As a result of the study, it was found that students who used the Internet for six hours or more a day showed more psychiatric symptoms such as

somatisation, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism compared to students without internet addiction.

Again, a questionnaire was conducted in China with 2059 Chinese seventh-grade students to examine the profiles of early adolescents addicted to the Internet and their personal and familial connections. Accordingly, the prevalence of internet addiction among the adolescents participating in the study was found to be 15.3 per cent. In addition, it was concluded that adolescents who live at home separately from their parents, who are in conflict with their families and who have problems with family communication have a higher risk of internet addiction (Chi, Hong & Chen, 2020). However, while internet addiction was the result of this study, which found a positive relationship between internet addiction and family communication, internet addiction was the cause in our study. In other words, Chi et al. found that individuals with family communication problems turn to the Internet. As a result, the risk of internet addiction emerges. At the same time, our interview study concluded that high school students' uncontrolled and excessive internet use weakened their communication with their families and caused problems with their families to emerge.

In response to the question about hiding the time spent on the Internet and what they do from family and friends, ten students, who constitute the majority, said that they hide the time they spend online and what they do from their family and friends. They hid this situation. They did not want other people to know because they had private lives. In this age period, when personality and identities are formed, individuals wish to exist in society, be accepted and become adults. In this regard, they emphasise that their private lives should be respected.

In response to whether they think they are socialised or alienated by problematic internet use, seven students, who constitute most of the students participating in the interview, stated that they are alienated from society. On the other hand, five students answered that they socialised, and the remaining six responded that they both were socialised and alienated or neither. Thus, within the scope of our study, it was found that high school students who participated in the interview by getting high scores on the internet addiction scale felt that they were alienated from society due to excessive internet use.

Internet addiction, which is characterised by excessive or poorly controlled preoccupations, impulses or behaviours that lead to impairment or distress related to computer use and internet access, is associated with dimensionally measured depression and social isolation indicators (Shaw & Black, 2008). This theory is supported by the study of Gazo, Mahasneh, Abood, and Muhediat (2020). They applied social self-efficacy, loneliness, and Internet addiction scales to 618 students studying at Hashemite University to investigate the relationship between social self-efficacy, loneliness and internet addiction. As a result, it was determined that the level of internet addiction and loneliness was at a medium level, a negative relationship was found between social self-efficacy and loneliness and Internet addiction, and a positive relationship was found between loneliness and internet addiction.

Problematic internet use at the level of widespread and behavioural addiction is a concern in most of the countries around the world, especially in developed countries with easy internet access. Because in today's information age, young people closely follow technological innovations and developments. They place the Internet at the centre of their lives, which they sometimes see as an attraction to make life easier and sometimes as an escape from the responsibilities in real life. Thus, the duration of use is extended day by day, and as a result, physical, psychological and social problems arise. This situation is essential for adolescents

whose physical, psychological and social development continues. So much so that, In this period, individuals are eager to grow up quickly and become adults. However, growing up and becoming an adult is a stage that every individual has to go through in his/her life (Fasco, 2010). On this road to adulthood, they must fulfil their age-specific developmental tasks and the responsibilities society expects from them. The biggest obstacle in front of this is unhealthy and uncontrolled internet use in the dimension of addiction. When using the Internet excessively, individuals move away from their natural social environments. As a result, they face various problems, such as loneliness and deterioration in psychosocial functions.

Therefore, loneliness becomes a challenging emotional process for human beings who are social beings. Because the feeling of loneliness, which is usually hidden behind physical complaints and manifests itself as restlessness, fatigue, impulse or lethargy, is accompanied by feelings of emptiness, isolation, hopelessness, immobility, meaninglessness and unhappiness. Thus, it is very stressful, lacking love, affirmation, security and warmth (Ulrich & Mayring, 1992). The feeling of loneliness, which is related to the individual's well-being, psychological resilience and self-confidence, can negatively affect the individual's ability to establish healthy communication with himself and his natural social environment.

Relationships with friends and peer groups form the basis of young people's social lives in a healthy and productive life stage. These relationships experience intense unity, protection, trust and orientation. In addition, individuals increase their self-confidence, competencies and personal development in these relationships. In addition, while friendship relationships that provide appreciation and emotional support are protective factors for individuals, breaking friendship communication is a risk factor that leads to isolation and loneliness (Kratzer & Juen, 2020). Therefore, loneliness may cause the individual to feel insecure towards the people around him/her, making it difficult for the individual to adapt to society and social life. To keep up with the globalising world conditions, the change in the meaning attributed to the Internet, which penetrates every aspect of life by individuals, is becoming widespread, especially among adolescents and young individuals open to innovations. As with many things in life, trying to carry out socialisation and friendship relations through virtual environments causes individuals to spend most of their time on the Internet, and as a result, they face significant problems in their private, social, and professional lives. In other words, they must cope with real loneliness in virtual crowds.

Of course, when the Internet improves existing relationships and establishes new social contacts, it can reduce loneliness. Still, loneliness can increase significantly when social technologies are used to escape from the social world and withdraw from face-to-face communication and interaction. Therefore, loneliness indicates how people relate to the digital world. In this context, in the interview with 4.9% of high school students who scored high on the internet addiction scale within the scope of our study, it was determined that the bond they established with the digital world tested them with a sense of loneliness. So much so that most students know this situation, but they need help and support regarding knowledge and developing their competencies to deal with it.

As a result of the increase in digitalisation in daily life, individuals are becoming more flexible and productive in their work. However, this decreases individual interaction and makes them feel lonely. International and national studies investigating the relationship between uncontrolled internet use and loneliness among adolescents and young people have become widespread in this context. Our research concluded that a significant relationship exists between young people with problematic internet use, alienation from society, and loneliness.

Young people are especially trying to adapt to information technology, changing and transforming life conditions, rapidly spreading to every aspect of life daily. To achieve this adaptation, they place the Internet, which is at the centre of technological developments, at the centre of their lives. However, if we look at the findings obtained in our study, it is seen that severe problems arise in psychological, physiological and social areas in the lives of individuals. In particular, the isolation of individuals causes concerns about both themselves and their socialisation. In other words, this situation is not only related to the process of withdrawing into one's shell but also to withdrawal from society due to the inability to develop socialisation skills. Therefore, loneliness becomes a problem that spreads like a contagious disease and concerns society.

In light of both the studies conducted in different countries of the world on the subject and the findings obtained as a result of our study, preventive and interventional strategies need to be developed to benefit from the services and facilities offered to humanity by the Internet, which is at the centre of modern life today, and to create healthy and controlled internet use. It is also recommended that more research be conducted on internet addiction for awareness-raising activities to be applied to all segments of society. There are recommendations for behavioural therapy interventions, especially within the scope of treatment practices, but there are no controlled intervention studies yet. Training to strengthen communication within the family and create motivation among individuals may be a promising approach. In addition, it is thought that the data obtained in our study can be used in guidance and infrastructure studies planned by various institutions and organisations on internet addiction in Türkiye.

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Ethical Statement

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