Problematic Internet Use of Adolescents: Role of Daily Hassles and Social Isolation

Osman Zorbaz¹, Selen Demirtaş Zorbaz², Özlem Ulaş Kılıç³

¹Ankara 4th Juvenile Court for Ministry of Justice, Ankara, Turkey
²Department of Psychological Counseling and Guidance, Ordu University Faculty of Education, Ordu, Turkey
³Department of Psychological Counseling and Guidance, Giresun University Faculty of Education, Giresun, Turkey

ORCID IDs of the authors: O.Z. 0000-0002-1744-4711; S.D.Z. 0000-0003-0040-9095; O.U.K. 0000-0002-2757-7905.

Main Points

- Being ignored, exclusion, and daily hassles significantly predicted high school students' problematic Internet use.
- Adolescents who are actively excluded or largely ignored by others have higher tendencies toward problematic Internet use, while problematic Internet users live more isolated lives than others.
- If a adolescence dealing with daily hassles does not develop positive coping skills, he or she may develop a tendency toward unhealthy behaviors such as problematic Internet use.

Abstract

Problematic Internet use not only has negative effects on adolescents' development and social lives but also may yield negative mental health outcomes. Taking into account that it may damage adolescents' school and family lives, it is clear that identifying and preventing factors associated with problematic Internet use is very important on both the individual and societal levels. The purpose of the present study was to explore the associations between problematic Internet use, daily hassles, and social isolation among high school students. The study group comprised high school students from various socioeconomic levels in Ankara, the capital city of Turkey. Data were collected from 371 high school students: 189 female students (51%) and 180 male students (49%). Hierarchical multiple regression analysis was used to determine variables predicting high school students' levels of problematic Internet use. The results showed that the variables of being ignored, exclusion, and daily hassles significantly predicted high school students' problematic Internet use. Suggestions were made in light of the current literature.

Keywords: Adolescence, daily hassles, high school, problematic internet use, social isolation

Introduction

The Internet has become an indispensable part of adolescents' daily lives. In Turkey specifically, the percentage of homes with Internet access was reported to be 80.7% in 2017 (TSI, 2017), and the rates of children aged between 6 to 15 who use computers, the Internet, and mobile phones are 60.5%, 50.8%, and 24.3%, respectively (TSI, 2013). It is possible to argue that the Internet, while playing an important role in our everyday lives, may lead to either positive or negative changes in one's life when used frequently. According to Yücel and Gürsoy (2013), the Internet, in its capacity to create such changes, is used by adolescents for school assignments, chatting with friends, researching issues about which they are curious, and learning about themselves in a world where they feel stronger. While practical use of the Internet offers many opportunities for adolescent development, its misuse can bring many risks (Bayraktar, 2013). Problematic Internet use, which can be observed at any age and social, economic, or educational level, is an important risk factor for adolescents (Young, 1996). As posited by Taçyıldız (2010), adolescents try to express themselves in a virtual world when they are not supported by family and friends, need to deal with their communication problems, or cannot find solutions for their failures in lessons. This shows that adolescents consider the Internet to be a space where they can avoid real-life...
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problems. Results of previous studies have supported this by indicating that adolescents use the Internet for communication and entertainment (Chak & Leung, 2004; Shepherd & Edelman, 2005). Frequent Internet use, though it can facilitate people’s lives in many ways, may also lead to certain problems. Problematic Internet use is considered to be a multidimensional syndrome leading to negative social, academic, and professional outcomes, as well as cognitive and behavioral symptoms (Caplan, 2005). Kim and Davis (2009) defined problematic Internet use as deterioration in important aspects of life, such as family and employment, due to frequent Internet use one is unable to control. Similarly, Yang and Tung (2007) emphasized that problematic Internet use has negative effects on adolescents’ daily activities, school performance, and relationships with teachers and family members. Obviously, problematic Internet use has drawbacks not only for individual’s educational needs but also their social needs.

“Internet addiction” is very popular in the literature; however, there are controversies over whether the concept fully reflects the nature of negative outcomes arising from Internet misuse. According to Ceyhan (2011), it is not appropriate to use the concept of Internet addiction in studies which are carried out using descriptive methods in nonclinical environments and reveal characteristics of the general population. Therefore, the concept of “problematic Internet use” was preferred in this study over “Internet addiction.”

It has been argued that many people meet their most important social needs-intimate relationships, support, and approval-through the Internet (Amichai-Hamburger, 2007). As argued by Caplan (2002), such people often prefer virtual rather than face-to-face communication, as they consider virtual communication to be less threatening. Caplan (2007) explained this was due to privacy, which is one of the most remarkable features of the Internet. Accordingly, online social interaction allows for more privacy than face-to-face communication, and people often perceive fewer social risks. In line with this belief, Davis, Flett, & Besser (2002) argued that problematic Internet use is associated with loneliness and diminishing socialization, and they found a correlation between problematic Internet use and sensitivity toward rejection, procrastination, and academic/professional problems.

Problematic Internet Use and Social Isolation

Considering the stages of psychosocial development, it is important for adolescents to communicate and establish close ties with their peers; therefore, problematic Internet use during high school can interrupt adolescents’ social development, as highlighted in previous studies. According to these studies (Anderson & Bushman, 2001; Gross, 2004; Kelleci, Güler, Sezer, & Gölbass, 2009; Kubey, Lavin, & Barrows, 2001; Morahan-Martin & Schumacher, 2000; Serrano et al., 2014; Yıldız & Bölükbas, 2005), people who display problematic Internet use lose friendships and face social isolation and loneliness. Thus, problematic Internet use may prevent adolescents’ interpersonal communication and lead them to experience social isolation. In view of the cognitive behavioral model of problematic Internet use (Davis, 2001), as well as according to Young (1996) and Caplan (2002), individuals facing this issue are prone to having psychosocial problems such as loneliness and depression, and spend less time with others. Additionally, previous studies reported that some people prefer to use the Internet to increase their socialization, which plays a fundamental role in problematic Internet use (Li & Chung, 2006). Previous studies particularly emphasized that timidity (Yuen & Lavin, 2004) and inadequate communication skills (Niemz Grifiths & Banyard, 2005; Serrano et al., 2004) are more common in online relationships than face-to-face relationships. Moreover, it has been stated that people with such characteristics prefer to engage more in social activities online. Furthermore, people with inadequate self-presentation skills prefer online social interaction over face-to-face interaction, and online social interaction preference leads to compulsive Internet use, which results in negative consequences (Caplan, 2005).

Previous studies, as well as Davis (2001) cognitive behavioral model, show that adolescents with problematic Internet use may consider the Internet as a shelter to avoid particular problems they have with others and to feel more comfortable. While this may lead to a high-level social isolation in adolescents, adolescents who are unable to communicate easily may use the Internet more, thus becoming lonely and unhappy people, creating a negative cycle.

Problematic Internet Use and Daily Hassles

Problematic Internet use may lead to psychopathology in some individuals, while certain pathological situations may trigger individuals to engage in problematic Internet use. For instance, it has been shown that people with problematic Internet use experience more daily stress than those who do not (Kraut et al., 1998; Suh & Lee, 2007). Furthermore, children experiencing stress will generally show higher levels of maladaptive behavior than other children (Jackson & Warren, 2000; Sandler & Block, 1979). Hutchinson (2004) indicated that stress is typically divided into two categories: major life events and daily hassles. Studies have shown that daily hassles are better predictors of maladaptive behavior than major life events (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982), and have a mediating effect between major life events and psychological symptoms (Pillow, Zautra, & Sandler, 1996; Wagner, Compas, & Howell, 1988). Daily hassles can be defined as “the irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment” (Kanner, Coyne, Schafer, & Lazarus, 1981, p.3). Serido, Almeida, and Wethington (2004) defined daily hassles as “relatively minor events arising out of day-to-day living, such as the everyday concerns of work, caring for others, and commuting between work and home.” Thus, daily hassles are situations that occur nearly every day and cause people irritation.

Daily hassles are less severe than major life events; however, they occur much more frequently (Hutchinson, 2004). Additionally, daily hassles can have more powerful effects on wellbeing than major life events (Kanner, Coyne, Schafer, & Lazarus, 1981; Repetti & Wood, 1997). Thus, the stress people experience may not necessarily stem from a major trauma or experience; daily experiences that are often ignored may be considered as a source of stress as well. Adolescents may face daily hassles in many areas of their lives such as family, school, or friendships, and the frequency of hassles in one domain may cause more hassles in another (Serido, Almeida, & Wethington, 2004). Thus, it is inevitable adolescents will try to avoid the reflection of a problem in one domain onto another. Previous research indicated that
adolescents experiencing daily hassles may develop problematic Internet use (Suh & Lee, 2007).

Though there are a few studies dealing with the correlation between daily hassles and problematic Internet use, several studies revealed the correlation between stress (as a broader framework of daily hassles) and problematic Internet use. For example, Odac and Gürkılıç (2017) suggested that as levels of depression, anxiety, and stress increase, so does problematic Internet use. Jun and Choi (2015) stated that adolescents experiencing negative emotions and academic stress have higher levels of problematic Internet use. Furthermore, studies revealed stressful life events were correlated with problematic Internet use (Li, Wang, & Wang, 2009). Similarly, Li et al. (2016) found in their study conducted with adolescents that stressful life events had negative effects on psychological needs and coping skills, which also resulted in increased problematic Internet use.

The Present Study
Problematic Internet use not only has negative effects on adolescents' development and social lives but also may yield negative mental health outcomes. Taking into account that it may damage adolescents' school and family lives, it is clear that identifying and preventing factors associated with problematic Internet use is important on both the individual and societal levels. Determining variables that influence problematic Internet use and can be intervened on may guide future efforts to prevent problematic Internet use with particularly negative effects on adolescents (Bayraktar, 2013; Caplan, 2002; Davis, 2001; Young, 1996).

A review of Davis (2001) cognitive behavioral model and other previous studies showed that social isolation and daily hassles may impact problematic Internet use. However, there are only a few studies which focus on daily hassles, and none of them deal with its effects on problematic Internet use along with social isolation. Therefore, the primary goal of the present study was to explore the associations between problematic Internet use, daily hassles, and social isolation in high school students.

Methods
Participants
The study group comprised 382 high school students from five public schools, which represented various socioeconomic (SES) levels in Ankara, the capital city of Turkey. Nine students were eliminated due to lack of Internet use.

A total of 189 students were female (51%) and 180 were male (49%). Of the students, 135 (36.6%) were in ninth grade, 138 (37.4%) were in tenth grade, and 96 (25%) were in eleventh grade. Students’ frequency of daily using the Internet was as follows: 42 students (11.4%) used it less than 1 hour, 123 (33.3%) used it for 1 to 3 hours, 110 (29.8%) used it for 3 to 5 hours, 39 (10.6) used it for 5 to 7 hours, and 55 (%14.9) used it for more than 7 hours.

Data Tools
Problematic Internet Use
The scale developed by Ceyhan, Ceyhan, and Gürçan (2007) to measure university students' problematic Internet use levels was adapted for adolescents by Ceyhan and Ceyhan (2009), with its validity and reliability confirmed. It is a five-point Likert-type scale with 27 items. It has the following three factors: “negative consequences of the Internet,” “excessive usage,” and “social benefit/social comfort.” This three-factor structure accounted for 49.35% of the total variance. Cronbach's alpha for internal consistency of the total scale was found to be 0.93 (Ceyhan and Ceyhan, 2009). In the present study, Cronbach’s alpha reliability coefficient was found to be .91 for the whole scale.

Social Isolation
The Ostracism Experience Scale for Adolescents, developed by Gilman, Carter-Sowell, DeWall, Adams, & Carboni (2013), was adapted into Turkish by Sertelin Mercan (2016). It is a five-point Likert-type scale with 11 items. It has the following two factors: “being actively excluded from the peer group” and “being largely ignored by others.” This two-factor structure accounts for 56.2% of the total variance. Cronbach's alpha internal consistency coefficients for the scale are 0.82 for being largely ignored by others and 0.83 for being actively excluded from the peer group. In the present study, Cronbach’s alpha reliability coefficient was found to be 0.84 for the whole scale, 0.89 for being ignored, and 0.82 for exclusion.

Daily Hassles
The Daily Hassles Scale, developed by Yıldırım (2004), aims to measure daily life that cause stress in adolescents. It is a three-point Likert-type scale with 52 items. It has the following four factors: “hassles about family,” “hassles about friends,” “hassles about educational life,” and “hassles about the wider environment.” This four-factor structure accounts for 56% of the total variance. Cronbach’s alpha internal consistency coefficient for the whole scale was found to be 0.91. In the present study, Cronbach’s alpha reliability coefficient was found to be 0.92 for the whole scale.

Demographic Information Form
Participants’ gender, grade, monthly family income, and frequency of Internet use were assessed using a demographic information form.

Procedure
Before collecting any data in the present study, the necessary permissions were obtained from the Ankara Provincial Directorate of National Education. Teachers determined the appropriate days and times for administration of the materials, and the researchers administered the data collection instruments to the students in groups. The necessary explanations were made during the administration process, and students were instructed on how to properly answer the items. Students took approximately 20 minutes to answer the questions.

Data Analysis
In the present study, hierarchical multiple regression analysis was used to define predictors of problematic Internet use. In the first equation, we regressed problematic Internet use increases on the control variables, SES, and gender in Step 1, and added being ignored, exclusion, and daily hassles in Step 2.

Results
Hierarchical multiple regression analysis was used to determine the variables predicting high school students’ levels of problem-
atic Internet use. For testing assumptions of regression analysis, multi-collinearity, normality, linearity, and autocorrelation values were analyzed. Multi-collinearity issues were addressed by studying correlations between the variables shown in Table 1. Table 1 shows that the correlation coefficients between variables vary between 0.02 and 0.50. No correlations were found above 0.80 (Tabachnick & Fidell, 2013). Skewness and kurtosis were also assessed, and it was determined that distribution of the dependent variable was normal, according to Tabachnick and Fidell (2013). A Kolmogorov – Smirnov test was also used to analyze whether distribution of the dependent variable was normal. At the end of the analysis, it was found that distribution of the dependent variable (K.S. for PIU=1.721, p>0.05) was normal.

The autocorrelation value for the dependent variable was analyzed to use the multiple regression method, and the Durbin Watson test value was found to be 1.50. According to Tabachnick and Fidell (2013), the Durbin Watson test value shows there were no autocorrelated residuals. Finally, whether the subscores of the dependent variable were linear was analyzed using normal P – P graphic, and it was found that the continual scores of the variable of problematic Internet use drew an angle of 45 degrees; thus, it did not deviate from linearity. As a result, it was understood that the necessary assumptions were fulfilled.

Regression coefficients were analyzed to determine whether the independent variables’ level of predicting the dependent variables was statistically significant in the model. Table 2 shows the results of the regression analysis regarding the variables which affected high school students’ problematic Internet use levels.

As shown in Table 2, hierarchical multiple regression analysis results showed that the variables of being ignored (t=4.503, p<0.001), exclusion (t=−2.999, p<0.05), and daily hassles (t=9.188, p<0.001) significantly predicted high school students’ problematic Internet use, when we controlled for gender and SES. In the model generated by hierarchical multiple regression analysis, the Beta coefficient of daily hassles was the highest (0.42), followed by being ignored (0.22), and exclusion (0.14). It was seen that when we controlled for gender and SES, the variables of being ignored, exclusion, and daily hassles together explained 31% (R=0.56, R²=0.31) of the variance in high school students’ problematic Internet use.

Discussion

The purpose of the present study was to explore the associations between problematic Internet use, daily hassles, and social isolation among high school students. The results of the study supported the concept that the variables of being ignored, exclusion, and daily hassles significantly predicted high school students’ problematic Internet use.

### Table 1.

**Correlations between Dependent and Independent Variables (Scale Scores), Coefficients of Skewness, and Kurtosis**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>PIU</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
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<td>1.00</td>
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<tr>
<td>3</td>
<td>SES</td>
<td>-0.03</td>
<td>0.12**</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>DH</td>
<td>0.30***</td>
<td>-0.05</td>
<td>-0.07</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>IG</td>
<td>0.36***</td>
<td>-0.02</td>
<td>-0.17**</td>
<td>0.39***</td>
<td>1.00</td>
</tr>
<tr>
<td>6</td>
<td>EX</td>
<td>-0.03</td>
<td>-0.02</td>
<td>-0.29***</td>
<td>0.11**</td>
<td>0.27***</td>
</tr>
<tr>
<td>M</td>
<td>59.09</td>
<td>1.49</td>
<td>3.94</td>
<td>89.43</td>
<td>7.21</td>
<td>16.93</td>
</tr>
<tr>
<td>SD</td>
<td>18.16</td>
<td>0.50</td>
<td>1.68</td>
<td>15.56</td>
<td>3.51</td>
<td>5.49</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.837</td>
<td>0.04</td>
<td>0.44</td>
<td>0.187</td>
<td>1.887</td>
<td>0.258</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>0.330</td>
<td>-2.01</td>
<td>-0.83</td>
<td>-3.10</td>
<td>3.181</td>
<td>-0.91</td>
</tr>
</tbody>
</table>

N=369; **p<0.01; *p<0.05.

PIU: problematic internet use; DH: daily hassles; IG: ignored; EX: exclusion; M: mean; SD: standard deviation

### Table 2.

**Hierarchical Multiple Regression Analysis**

<table>
<thead>
<tr>
<th>Model</th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized</td>
<td>Standardized</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Gender</td>
<td>4.36</td>
<td>1.91</td>
</tr>
<tr>
<td>SES</td>
<td>-0.49</td>
<td>0.57</td>
</tr>
<tr>
<td>Ignorance</td>
<td>1.15</td>
<td>0.26</td>
</tr>
<tr>
<td>Exclusion</td>
<td>-0.47</td>
<td>0.15</td>
</tr>
<tr>
<td>Daily hassles</td>
<td>0.50</td>
<td>0.06</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; ***p<0.001.
Problematic Internet use. The related literature contains studies focusing one people with problematic Internet use (Anderson & Bushman, 2001; Gross, 2004; Kelleci, Güler, Sezer, & Gölbas, 2009; Kubey, Lavin, & Barrows, 2001; Morahan-Martin & Schumacher, 2000; Serrano et al., 2004; Yıldız & Bölükbaş, 2005). These studies argued that people who show such behaviors experience losses in their friendships and face situations such as social isolation and loneliness. Similarly, according to the cognitive behavioral model (Davis, 2001), people with problematic Internet use tend to experience psychosocial problems (e.g., loneliness, depression). The model suggests that social isolation and lack of social support can be symptoms of problematic Internet use. Young (1996) similarly argued that problematic Internet users who spend little time with others prefer to be engaged with their computers. Thus, it is possible to suggest that people who are actively excluded or largely ignored by others have higher tendencies toward problematic Internet use, while problematic Internet users live more isolated lives than others. Therefore, the results of this study supported the finding that being excluded and ignored, which are sub-dimensions of social isolation, can significantly predict problematic Internet use.

It is possible to say that the results of the present study are in line with all of these previous findings. Based on the results of those studies, it can be argued that problematic Internet use leads to people having fewer interpersonal relationships, which may result in social isolation. Problematic Internet use (particularly during high school), negative social experiences, and problems that may stem from emotional and personal characteristics can form a basis for loneliness and social isolation.

Another finding of this study was that daily hassles are significant predictors of problematic Internet use. This was in line with previous studies suggesting an association between stress, daily hassles, and problematic Internet use (Suh & Lee, 2007; Jun & Choi, 2015; Li et al., 2016). Additionally, it was shown that those who are online for longer periods of time report more daily life stressors and hassles (Kraut et al., 1998; Kraut et al., 2002). Li, Wang, and Wang (2009) compared groups with and without problematic Internet use, and revealed that problematic Internet users experienced more stressful life events.

As DeLongis, Coyne, Dakof, Folkman, and Lazarus (1982) stated, daily hassles are better predictors of maladaptive behavior than major life events. As daily hassles are constant and frequent, they affect people’s coping skills. Consciously or not, people may try to avoid problems. Thus, if a person dealing with daily hassles does not develop positive coping skills, he or she may develop a tendency toward unhealthy behaviors such as problematic Internet use. Davis (2001) cognitive behavioral model suggests that people tend to use the Internet to avoid their problems, including problems they may have with others. When these problems are not dealt with effectively, frequency of Internet use may increase, eventually leading to problematic Internet use.

Implications for Practice and Research
The data from this study provided several practical applications worthy of future research. First, it is possible to claim that dealing with psychological symptoms such as depression, revealing which factors are influential on adolescents’ social isolation, and analyzing how these factors affect problematic Internet use are meaningful attempts toward developing preventive measures. Hence, testing a model with different psychosocial variables might prove useful. Families’ support of their children to take up leisure activities and spend time on social events may be beneficial, considering the effect of social isolation on problematic Internet use. Thus, psychological counselors in schools could organize seminars for parents to help them establish healthy and effective communication with their children. Moreover, organization of activities both in and out of the classroom to keep the adolescents away from problematic Internet use with the participation of all school staff, including teachers, managers, and psychological counselors, may be helpful.

It would be valuable to further examine which coping mechanisms adolescents use when they encounter daily hassles. The results of the present study indicated that daily hassles are significant predictors of problematic Internet use; however, it would be useful to analyze in-depth the reasons why adolescents develop problematic Internet use. Additionally, psychological counselors in schools who work with adolescents could learn whether their counselees experience daily hassles and, if so, to what extent they are affected by them. Taking into account that psychological counseling in schools is rather interventionist—that is, it aims to solve problems following a crisis—it is possible to say that psychological counselors in schools primarily deal with major life events. However, daily hassles may lead to bigger problems than major life events. Therefore, it is important for psychological counselors to focus on adolescents’ daily hassles, even if they seem trivial, to offer preventive psychological services.

Limitations and Directions
This study has some basic limitations. First, this study was restricted to high school students studying in three schools in Ankara. Thus, the findings obtained in the present study may only be generalized to high school students with similar characteristics. Replicating the study in other major cities in Turkey would help to provide a more comprehensive picture of high school students’ problematic Internet use. Second, twelfth-grade students could not be contacted; therefore, generalizability may be increased by including twelfth-grade students in future studies.

Ethics Committee Approval: Authors declared that the research was conducted according to the principles of the World Medical Association Declaration of Helsinki “Ethical Principles for Medical Research Involving Human Subjects”, (amended in October 2013).

Informed Consent: Written informed consent was obtained from all parents of adolescents and the adolescents themselves included in the study.

Peer-review: Externally peer-reviewed.


Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: There are no financial conflicts of interest to disclose.
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