Effect of internet addiction on leisure facilitators in individuals thinking that their health worsens through the internet

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ABSTRACT

The aim of this study is to investigate whether the relationship between internet addiction and leisure facilitators of Siirt University School of Physical Education and Sports varies significantly in terms of different variables. The study group consists of a total of 192 participants, 84 (43.8%) and male 108 (56.2%), who study at the School of Physical Education and Sports of Siirt University and answer yes to the question of whether it disrupts your internet health. As the data collection tool in the study, “Leisure Facilitators Scale” developed by Kim et al. (2011) and whose validity and reliability in Turkish was developed by Gürbüz et al. (2015) and the “Internet Addiction Scale” developed by Balta and Horzum (2008) were used. Number, percentage, average and standard deviation were used as descriptive statistical methods in the evaluation of the data. The research model was tested with structural equation analysis. Relationships between leisure facilitators and internet addiction were tested by the structural model analysis. Structural Equation Modeling is an analysis method that allows the variables to be analyzed simultaneously and together with latent variables (Wan, 2002). Schematic model and regression coefficients are given below. As a result of the research, the goodness of fit values of the structural model between leisure facilitators and internet addiction are highly acceptable. Leisure facilitators do not affect internet addiction (p > 0.05).

Keywords: Health, leisure, internet addiction, physical education.

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INTRODUCTION

Sport is an important phenomenon for human beings in terms of acting in harmony with nature, maintaining their existence and improving themselves in the biological, psychological, and social sense. While people have been doing sports to meet or fight their basic needs in the past, it is seen that today sports are also done for recreational purposes by changing shape. Recreation is defined in the Turkish Language Association dictionary as “Activities that people voluntarily participate in in their spare time for entertainment and sports purposes” (TDK, nd). With the development of the industry, unplanned urbanization, which increased rapidly with the increase of migration from rural areas to cities, destroyed the natural areas where people’s free time activities can be carried out and increased the intensive work tempo, leading to unhealthy individuals in biological, psychological and social terms. In addition, increasing inactivity and stressful urban life with technological developments negatively affect a person’s physical, psychological and social aspects (Beşikçi, 2016). One of the technological developments that negatively affect individuals is the internet addiction caused by the misuse of the internet. As its name signifies, the term addiction evokes an unfavourable meaning and thus any type of addiction may be considered as something that may potentially harm the addicted individual. As Neverkovich et al. (2018) mention, “Among the negative social and psychological consequences, the impact of the Internet has had is the
so-called Internet addiction phenomenon, which has been the subject of scientific debate for the past 20 years, depending on the development of information technology and its availability. Internet addiction can also be considered as a type of disorder that may have long-lasting consequences such as torticollis, a disorder when the sufferer has a painfully twisted and tilted neck, and cervical disc hernia which is highly dangerous for health. Besides, the internet user may suffer from feelings of guilt, anxiety, depression and no sense of time following long time of using internet or computer. Another consequence of internet addiction regarding human health is the disorder of kyphosis, which refers to the exaggerated and forward rounding of the back. On the other hand, one of the main activities that may prevent a person from being highly engaged in internet use ensuring that the person avoids abovementioned internet-addiction-based disorders is leisure activities.

From this point of view, this phenomenon should also be taken into consideration along with its relationship with leisure facilitators which are enumerated as personal, interpersonal, and structural facilitators by Kim et al. (2011). These two phenomena are interrelated in that internet addiction obviates the choices of individuals whether personal or interpersonal or structural. While leisure activities are expected to positively help individuals gain confidence, be more sociable, focus on useful things and value what is around them, internet addiction may simply be defined as a mental disorder that is likely to have more detrimental social and psychological consequences among individuals. The impact of computer and Internet technologies and the emergence of new leisure activities and communication forms between young people must be analysed from the perspective of general cultural change in order to reduce their impact (Neverkovich et al., 2018). Weinstein et al. (2015) states that those who are internet addicted use ineffective coping strategies with difficult life situations and reveal problems in interpersonal communication. He further suggests that internet addiction can be seen as leaving solving the problems of life, and from oneself (Weinstein et al., 2015). To better understand the term internet addiction and leisure facilitators, it is crucial to highlight these terms with their definitions in brief. Shaw and Black (2008) attempt to define internet addiction as a phenomenon involving not only a variety of computer-use behaviors but also all forms of inappropriate and/or excessive computer use, even when it does not involve Internet access. This statement implies that internet addiction is the simplified version of computer or any other digital machine use which has gained momentum in the wake of internet. On the other hand, leisure activities or leisure is defined by Kraus (1994) as the time period in which individuals satisfy their feelings of emotion, pleasure and entertainment by freely choosing their activities, and thereof fulfill their self-realization by unveiling their potential. Wise (2014) believes that "to make sense of the difficulty in finding the universal definition of leisure, one ought to turn, at least initially, to philosophy because to answer the question “What is leisure?” requires philosophical inquiry". Thus, he makes use of two broad philosophical approaches by Hemingway (1993) to understanding leisure: Platonic and historicist. While from the platonic perspective, Aristotle (2001) defined leisure as freedom from obligation and centrally positioned leisure within the framework of a well-lived life, from the historicist perspective, which is in stark opposition to Aristotle, Aquinas, and Pieper (Wise, 2014), MacIntyre (2007) defines leisure based on a practice which is defined as:

"…any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realized in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved, are systematically extended".

Internet use as a new leisure behavior has been added to the youth leisure behavior network in recent years. Due to the increasing importance of leisure in modern life and the prolongation of its leisure time on the one hand and the differences in leisure behaviors online with other leisure behaviors on the other hand, this event requires serious reflection (Pak Sarsasht and Nourinia, 2007). One of the most important features of the Internet that have played a major role in the development and expansion of its application is its multi-functionality. Today, the Internet has been used in a wide range of commercial, economic, cultural, advertising, administrative, organizational, political, military, social, and scientific activities. The Internet is a tool for the exchange of information and communication in today's world. Thus, it can be claimed that none of the former communication and information tools has left such wide-ranging effects on all aspects of human personal and social life (Pak Sarsasht and Nourinia, 2007).

The results of studies show that in recent decades, internet provides various opportunities for users and creates a virtual world and addiction that has unique and different features. It has real-world implications, including symbolic relationships, fundamental changes in the concepts of time and space, concurrent communication, independent of distance and place, metaphor and place, relative independence from government laws and anonymity of users, and fake user profile, connecting with people from other cultures and so on, all pointing to users' lifestyles especially how they spend their leisure time (Askari and Hosseini, 2019).
It can be said that leisure is a special area of human experience that is privileged for individuals, having the right to choose, creativity, satisfaction and enjoyment that brings the person more pleasure and happiness (Zakaei, 2007).

The results of a study examining socioeconomic status and leisure time among young students aged 18-29 showed that there was a significant relationship between economic status and leisure activities, especially Internet use (Pempek et al., 2009).

In this study, the Internet Facilitator Scale (LFS) was found to be high as may arise from avoiding internet use, neuroticism and dry eye. Torticollis can be associated with disorders suffered by new-borns. As Stellwagen et al. (2008) state, although there are many diseases that cause curvature in the neck, torticollis mainly occurs in babies. They add that the complaint is about a swelling on the muscles extending on the right or left side of the neck, a curvature of the neck towards the held side, and facial asymmetry. The main cause of this disorder is also related with internet addiction as wrong moves by a person such as falling asleep in front of the television on an armchair, sudden fall of the neck during long journeys, and spending long time on computers or internet (Stellwagen et al., 2008). Another disorder stemming from internet addiction is kyphosis, which was studied by Hensinger in 1977. Hensinger (1977) claims that the disease can be seen in people who use computers or students who use the internet constantly, even at a younger age adding that kyphosis can be called "humpback", which is a disease that occurs when the spine is bent forward. Besides, when facing internet addiction, the addicted person may suffer emotional disorders as well anxiety, feelings of guilt, depression and no sense of time. The addicted person feels anxious when s/he feels that what is being done is something that makes him/her avoid doing useful activities. Then, the addicted person feels guilty as his/her use of internet leads to futileness and depression in the final phase. After all these unfavorable consequences, the addicted person finds him/herself in a manner that makes him/her feel no sense of time, which may lead to long-lasting effects.

To eradicate the causes and effects of internet addiction, leisure facilitators may serve well as they are correlated with the personal choices that may ease depression and enhance the comfort of life. When the addicted person or the likely-to-be addicted person makes use of leisure activities with awareness of leisure facilitators, internet addiction may be prevented. Thus, to fill the gap that may arise from avoiding internet use, leisure activities may serve an important function and provide the sufferer with a more comfortable and satisfying life.

MATERIALS AND METHODS

Leisure facilitator scale

"Leisure Facilitator Scale (LFS)", which was developed by Kim et al. (2011) and whose validity and reliability in Turkish was made by Gürbüz et al. (2015), was used. The Turkish adaptation study was carried out on university students. LFS, the original of which consists of 27 items and 3 factors, supported 16 items and 3 factors. The subdimensions of the scale adapted into Turkish were named as "Personal Facilitators", "Interpersonal Facilitators" and "Structural Facilitators" in accordance with the original form and literature. Cronbach Alpha internal consistency coefficients ranged from 0.66 to 0.79 for the 3 subdimensions in the final form of the scale, and the total scale score was calculated as 0.86 (Zakaei, 2007). In this study, the reliability of the LFS was found to be high as Cronbach’s Alpha = 0.805.

Internet addiction scale

"Internet Addiction Scale" developed by Balta and Horzum (2008) is a five-point Likert-type scale consisting of 19 items. The lowest score to be taken from the scale is 19, and the highest score is 95. Those who are “average internet users” range between 19-48 points, those who “have occasional problematic internet use” are between 49-78 points, and those who have “frequently problematic internet use” have 79 or more points. In this study, the reliability of the Internet Addiction Scale was found high as Cronbach’s Alpha = 0.788.

Statistical analysis

Number, percentage, average and standard deviation were used as descriptive statistical methods in the evaluation of the data. The research model was tested with structural equation analysis.
RESULTS

In this section, the findings obtained as a result of the analysis of the data collected through the scales of the students participating in the research are included for the solution of the research problem. Explanations and comments were made based on the findings obtained.

As shown in Table 1, according to the departments, students are distributed as 68 (35.4%) Physical Education Teachers, as 70 (36.5%) Sports Managers, and as 54 (28.1%) Coaches. According to the students, 18 (9.4%) 1, 73 (38.0%) 2, 84 (43.8%) 3, 17 (8.9%) 4 are distributed. 144 (75.0%) of the students are distributed as Yes and 48 (25%) and 48 (25%) as No according to the status of doing sports.

As shown in Table 2, Personal facilitators (PF), Interpersonal facilitators (IF), Structural facilitators (SF) and Internet Addiction averages of the students were found as $3.332 \pm 0.919$ (Min = 1.2; Max = 5), $3.361 \pm 0.848$ (Min = 1; Max = 5), $3.417 \pm 0.697$ (Min = 1.29; Max = 5), and $70.563 \pm 6.945$ (Min = 36; Max = 87), respectively.

Relationships between leisure facilitators and internet addiction were tested via the structural model analysis. The structural equation modeling is a method of analysis that ensures that variables are analysed along with observed and latent variables (Wan, 2002). The diagrammatic model and regression coefficients are given in Figure 1.

The goodness of fit index values for the model are given in Table 3.

It is seen that the goodness of fit index values of the structural model between leisure facilitators and internet addiction are highly allowable. The level of significance, coefficients and hypotheses that determine the cause-effect relationship are given in Table 4.

Table 1. Descriptive statistics of groups.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>108</td>
<td>56.2</td>
</tr>
<tr>
<td>Female</td>
<td>84</td>
<td>43.8</td>
</tr>
<tr>
<td>Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Education Teacher</td>
<td>68</td>
<td>35.4</td>
</tr>
<tr>
<td>Sports Management</td>
<td>70</td>
<td>36.5</td>
</tr>
<tr>
<td>Coaching</td>
<td>54</td>
<td>28.1</td>
</tr>
<tr>
<td>Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td>9.4</td>
</tr>
<tr>
<td>2</td>
<td>73</td>
<td>38.0</td>
</tr>
<tr>
<td>3</td>
<td>84</td>
<td>43.8</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>8.9</td>
</tr>
<tr>
<td>The Status of Doing Sports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>144</td>
<td>75.0</td>
</tr>
<tr>
<td>No</td>
<td>48</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Table 2. Point averages of LFS and internet addiction.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Average</th>
<th>Ss</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal facilitators</td>
<td>192</td>
<td>3.332</td>
<td>0.919</td>
<td>1.200</td>
<td>5.000</td>
</tr>
<tr>
<td>Interpersonal facilitators</td>
<td>192</td>
<td>3.361</td>
<td>0.848</td>
<td>1.000</td>
<td>5.000</td>
</tr>
<tr>
<td>Structural facilitators</td>
<td>192</td>
<td>3.417</td>
<td>0.697</td>
<td>1.290</td>
<td>5.000</td>
</tr>
<tr>
<td>Internet addiction</td>
<td>192</td>
<td>70.563</td>
<td>6.945</td>
<td>36.000</td>
<td>87.000</td>
</tr>
</tbody>
</table>
Table 3. The goodness of fit index values between LFS and Internet addiction according to the structural model.

<table>
<thead>
<tr>
<th>Indeks</th>
<th>Normal Value*</th>
<th>Allowable Value**</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>χ2/.sd</td>
<td>&lt;2</td>
<td>&lt;5</td>
<td>1.85</td>
</tr>
<tr>
<td>GFI</td>
<td>&gt;0.95</td>
<td>&gt;0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>AGFI</td>
<td>&gt;0.95</td>
<td>&gt;0.90</td>
<td>0.91</td>
</tr>
<tr>
<td>CFI</td>
<td>&gt;0.95</td>
<td>&gt;0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>RMSEA</td>
<td>&lt;0.05</td>
<td>&lt;0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>RMR</td>
<td>&lt;0.05</td>
<td>&lt;0.08</td>
<td>0.06</td>
</tr>
</tbody>
</table>

*, ** References: (Şimşek, 2007; Hooper and Mullen, 2008; Schumacker and Lomax, 2010; Waltz et al., 2010; Wang and Wang, 2012; Sümer, 2000; Tabachnick and Fidel, 2007).

Table 4. Structural model regression coefficients.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>β</th>
<th>Std (β)</th>
<th>S.dandard Error</th>
<th>t</th>
<th>p</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA &lt;-- PF</td>
<td>0.005</td>
<td>0.006</td>
<td>0.085</td>
<td>0.062</td>
<td>0.951</td>
<td>Rejection</td>
</tr>
<tr>
<td>IA &lt;-- IF</td>
<td>0.023</td>
<td>0.050</td>
<td>0.045</td>
<td>0.520</td>
<td>0.603</td>
<td>Rejection</td>
</tr>
<tr>
<td>IA &lt;-- SF</td>
<td>0.133</td>
<td>0.123</td>
<td>0.124</td>
<td>1.074</td>
<td>0.283</td>
<td>Rejection</td>
</tr>
</tbody>
</table>

Leisure facilitators do not affect internet addiction (p > 0.05).

**DISCUSSION**

In the light of the information obtained as a result of the analysis of the data obtained in this study, it was observed that there was no statistically significant difference between the internet addiction levels of male and female subjects. In our country, it has been shown in previous studies that internet use is quite high among the young population. 3975 middle school and high school students were asked about the time they spent on the internet and 7.6% of the participants stated that they spent more than 12 hours a week on the internet in a study that was carried out on the internet use of Turkish young people (Yolga Tahiroğlu et al., 2008). In the study, in which the high school students’ internet addiction levels were examined, it was determined that 1.6% of 961 students were internet addicts and 37.6% were in the category of “potentially dependent at risk” (Gökçearslan and Günbatar, 2012). In the study regarding the frequency of internet use, it was reported that the majority of middle school students use the internet frequently and spend more time on the Internet as the age grows (Can et al., 2018). In the study conducted by Orhan and Akkoyunlu (2004) on 172 high school students, it was reported that 2.33% of the participants were identified as internet addicts and 17.45% were internet users in the
risk group. The term internet addiction refers to a kind of behavioral dependency on the Internet with features like depression, introversion, shyness, boredom and loneliness, fear, hyperactivity and social anxiety (Bakhshayesh, 2014).

Depression is one of the most common psychiatric disorders that will be worldwide according to the estimates of the World Health Organization by 2020 (WHO, 2012). Sadness and self-reflecting emotions like shame are also included in these disorders. Depression is often defined by considering five categories of features that includes sadness and a cruel mood (National Institute of Mental Health, 2016). Negative ones also include blame and self-indulgence (Zahn et al., 2015) and the desire to avoiding others (Bajraktarov et al., 2017) and sleep loss and appetite that make weight loss resulting in a decrease in sexual desire and a change in activity, (ADAA, 2016; Deumic et al., 2016) which are usually associated with drowsiness and sometimes discomfort (Ferreira et al., 2017). Depressed people feel that there is no future. They do not have self-serving goals, and they are not useful and not attractive And they have no value (APA, 2013; Karimi and Mazaheri, 2016). Symptoms of this disorder such as sadness, feelings of worthlessness, lack of concentration and the ability to think, feeling guilty, insomnia, feeling of failure, suicide and much more other dangerous symptoms are visible in depressed people (Rivaz et al., 2013). Studies have shown that depression in internet addicted users compared to regular users is more common (Shahbazirad and Mirderikvand, 2014; Turi et al., 2014).

The separation of the individual from the real world is related to sedation and reduces happiness and social interactions and engages the user’s mind resulting in imaginative dysfunctionalism that results in depression and anxiety. The Internet has varying degrees of social avoidance and behavior that are socially abnormal (Dargahi and Razavi, 2007).

In a study conducted by Omran et al. (2018) with 288 participants, there was a significant relationship between internet use, depression, and mental, psychological and social harm.

In a study by Nie and Ebring (2000), it was concluded that as internet use grows, people spend less time with friends and family, do shopping less or watch TV less often. The result of a survey of 4,118 adults in the US was that although most internet users can communicate with their family or friends using email, they can never have coffee with them or hug them. This technology has been a means to minimize most of the constructive communication as in the decades before television.

Afonsoo points out that using internet causes frustration, loneliness, anxiety, and overall mental health decline and those who use internet spend less time talking to their families and are more likely to experience loneliness, depression, lack of self-esteem, and academic failure (Ghasemzadeh, 2006).

Researchers have undertaken a theoretical meta-analysis of external research in the field. The impact of virtual social networks on young people’s lives and how they spend their leisure time and new types of interaction and new ways of living are among the topics that have been examined. The results of this study show that new types of interaction and new ways of living are influenced by the presence of cyberspace for young people. Another result is that virtual social networks have a multifaceted, multifaceted impact on young people’s lives and how they spend their leisure time (Tabar and Jaafar, 2013).

Leisure facilitators refer to a theory that is regarded as important as barriers and strategies to cope with these barriers. Almost every individual may encounter certain obstacles in participation in leisure time, however, some of them overcome these obstacles and others cannot. In this case, the main determinant is the strategies to cope with obstacles, but the structure behind the coping strategies is facilitators (Hubbard and Mannell, 2001). When the international literature on leisure time facilitators is reviewed, it is observed that studies on facilitators are scarce and mainly based on theoretical foundations (Raymore, 2002), and have been related to extreme sports (Brymer, 2009), elderly individuals (Tatham and McCree, 1993) and facilitators in family studies (Swinton et al., 2008). When Turkish studies are examined, it is observed that studies on leisure facilitators are new and predominantly focus on women, college students and the adult population, and that facilitators are addressed together with obstacles.

Studies addressing leisure time barriers and facilitators have focused on the relationship between these two concepts and whether they differ according to different parameters. In the study conducted by Koçak (2017), it was stated that there was a negative relationship between the participation of university students’ leisure time physical activity and leisure time barriers, whereas participation in physical activity was found to be a positive relationship between coping and facilitators. In the study conducted by Emir et al. (2016) on women, it was determined that the most important facilitators that direct the participants to the activities are “personal facilitators”, whereas “interpersonal facilitators” are the least important factors. In the same study, it was determined that the highest constraint on leisure time barriers was established and the least constraint was lack of friends. In addition, it has been observed that the scores of women who are members of a sports center and who exercise regularly are higher in terms of facilitators, while the scores of disabilities are lower. In the study conducted by Sarol (2017), when the scores on structural facilitators are evaluated, the interpersonal obstacles, which are the sub-dimension of the leisure time barriers, which are evaluated according to the main effect of the marital status, are differentiated and the difference is in favor of the singles. In the same study, the relationships between leisure time barriers, facilitators and income
level were also investigated and it was observed that there was no significant relationship between income level and facilitators, but only a significant, negative and low level relationship between income and leisure time barriers.

However, there is no exploratory study in the literature on what could be the dominant variable that predicts each other the most between the two main variables. Therefore, the aim of the study is to examine the relationship between leisure time barriers and facilitators with interpersonal facilitators.

CONCLUSIONS

In this study, the relationship between internet addiction and leisure facilitators was investigated through the participation of students at Siirt University. Though the researcher previously mentioned that internet addiction could be eradicated through leisure activities with awareness of leisure facilitators, the results of the study did not turn out to overlap this thought. Among the potential reasons of these results may be:

- That most of the participants are not internet addicts,
- That most of the participants come from a low socio-economic level, which means that leisure activities are not as important as earning money or having a job,
- That the city (Siirt) is not a convenient place for leisure activities,
- And that most of the participants do not have the opportunity to have an individual computer and internet at their homes.

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