

Internet addiction and loneliness

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Abstract

Nowadays the wide spread of internet, especially in young people, has resulted in the creation of the phenomenon of addiction to the internet. Internet addiction is a new kind of mental disorder resulting from excessive use of the Internet, as it interferes with daily life. Therefore internet addiction is an issue of particular concern for modern society. The fact that teenagers have not created yet critical thinking, places them a high risk of addiction to the internet. In addition, internet addiction creates many problems in the field of mental health of young people, and their families. Loneliness is a frequently reported mental illness addicted to the internet.

This study examines the relationship between internet addiction and loneliness in adolescents Greek students. The participants to the research were 100 adolescent students from 13-15 years, mean age 14.3 (SD. 0,647), who live in the city of Volos. In order to draw conclusions about the rates of addiction to the internet we used the Greek version of the assay for detection and record the rates of Internet addiction (Young, 1999). On the other hand, in order to trace the connection between loneliness and Internet addiction among young people we used the self-administered questionnaire investigating depression Children's Depression Inventory (Kovacs, 1981).

Our research has shown that there is a high positive correlation between loneliness and Internet addiction. Children found addicted to the internet showed highly statistically significant differences ($p < 0.001$) compared with children in the control group

at CDI. Survey results suggest that students addicted to the Internet have significantly higher rates of loneliness. The fact that the rates of internet addiction in the adolescents grow exponentially along with the highest rates of loneliness in the addicted students, makes the need for study of the phenomenon of Internet addiction imperative.

Key-words: Internet Addiction, Loneliness.

Introduction

The use of Internet in recent years in Greece has increased significantly. In Greece 63% of the population has mobile Internet, while 45% of households and 80% of enterprises have broadband access (Capralos, 2012). The Internet is now one of the main tools of communication for young people, and the softwares for easy communication internet becomes more and more popular. The dramatic increase of Internet use by young people and the transformation of real society in Internet society, has in turn led to the creation of new data in the new psychology. The large number of internet users, especially in the population of young people, and the phenomenon of internet addiction to them, has led the scientific community (psychologists, psychiatrists and educators) to turn their attention to this new phenomenon of dependency to the new technologies (Stern, 1999).

The definition of dependence is the coercion, which makes the addicted to participate in one activity or to use a substance. The effects of addiction are devastating for the mental, social, physical and economic reality of the addicted (Leshner, 1997). The existence of addiction is visible in the mental, and physical health of the addicted. In case of addiction to substances like drugs and alcohol we have. In this case, while the addictive substances cause pleasure to the user, the continuous consumption leads to compulsive behavior, as it requires continuous use in order to eliminate the effects of stress associated with deprivation. In the case of psychological

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dependence, where internet addiction belongs the symptoms of despiration are loneliness, depression, low physical activity, problems in study, a constant need internet navigation, irritability, insomnia (Yan, Fu-chun, Ya-song, Ling-di, Zhi-min, Jian-rong & Hao Lei, 2011)

Loneliness is a characteristic of our time and basically describes the situation in which one lives either alone, or without communication with those around him.

One of the first research efforts for the association of loneliness and addiction started since 1997 and noted the psychological effects of Internet use (Kraut, Patterson, Lundmark, Kiesler, Mukophadhyay & Scherlis, 1998). In an era in which the majority of households in America have computers, researchers have provided computers connecting to the internet while families who had no previous relevant experience. Two years later, the study showed that even a short duration of internet use is linked with increased rates of depression and feeling of loneliness. (Kraut, Kiesler, Boneva, Cummings, Helgeson & Crawford, 2002).

Essentially the internet came to fill gaps in the modern lifestyle. Originally expect the internet to offer excellent assistance for addressing low self-esteem, loneliness and depression. It happened, however, just the opposite, as the internet did not work as a tool fillings psychology and communication, but maximized the existing problem. Specifically, through the internet user of social media (facebook) seeks to remedy the lack of social interaction (Griffiths, 2011). The teenager, who develop online relationships, trying to cope with social phobia and loneliness that characterizes him. The child, who is increasingly engaging with online games, feels strong, finding psefdoantivaro in the low self-esteem (Rooij, A., Schoenmakers, T., Vermulst, A., Eijnden, R. & Mheen, D., 2010).

So the user trying to solve the problem of intense loneliness and isolation, essentially trapped in a new form of addiction, which encapsulates the problem and maximizes. The consequence of this is the interrelationship of mental illness and addiction (Park & Choi, 2011). Specifically, the survey finds that the more one is addicted to the internet, the higher the risk to present a mental illness, such as loneliness. Similarly, people with mental illnesses encountered frequently in groups addicted to the internet. (Young & Rogers, 1997).

The diagnosis of internet addiction is linked with mental symptoms that occur from misuse, since

many hours of Internet use does not necessarily addiction to it (Akin & éskender, 2011). People today can conduct transactions, access to libraries, to plan their holidays, to communicate, to operate a business and use all the positive dimensions of the Internet (Wellman & Haythornthwaite, 2008). Unlike addiction to drugs and alcohol, the Internet is almost mandatory now an integral part of personal and professional life of most of the population, without of course necessarily lead to addiction. However, symptoms such as loneliness, clinical depression, anxiety, compulsive tendencies are signs of addiction to the internet. Then need further examination and clinical interview in order to have an accurate diagnosis. The interrelationship Internet addiction and loneliness can help diagnose the problem (Shapiro, Goldsmith, Keck, Khosla & McElroy, 2000).

The treatment of addiction to the internet in order to reduce the occurrence of mental disorders, such as loneliness, has occupied much of the scientific community. Characteristic of the effort is the fact that up to the time management software online, such as software WebSense (Hegli, Carrington & Oei, 2003) and software SpyMonkey, have been implemented in order to be able to control the time usage. Numerous studies have already versed in how the family dynamics and interpersonal skills, influence the approach of the internet. The treatment of mental disorders, such as loneliness, can in turn be retrograde to the excessive use of the internet given the bidirectional relationship between the two problems. The fact that a psychologically healthy person has a resistance to any form of addiction, essentially leads to the conclusion that perhaps addiction prevented and treated better if previously face loneliness.

Methodology

Participants were 100 children (51 boys / 49 girls) aged 13-15 years ($M.O.14,3 \pm 0,647$), which were selected by random sampling in secondary schools of the conurbation of Volos.

The children were administered a questionnaire measuring Internet addiction of Young (1996) adapted to the Greek. This test comprises eight closed questions with two possible answers (yes / no). The rate of addiction of the evaluated results from all the positive responses.

In the same research group administration and self-administered depression scale Children's Depression Inventory (CDI). The CDI is a short test

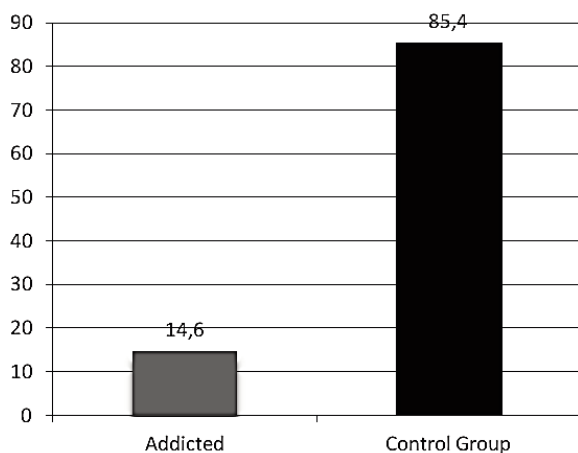
of self determination which helps to assess cognitive, emotional and behavioral signs of depression and loneliness in children and adolescents 6-18 years.

The CDI includes 26 closed questions with three possible answers. It is also available in a smaller form of the test with 10 questions. The test used by clinical child psychologists, primarily for the diagnosis of psychopathological disorders, and given either individually or in groups. Finally, it should be noted that this questionnaire explores five clinical characteristics of individuals. More specifically explores the negative mood, interpersonal problems, negative self-esteem, ineffectiveness and anhedonia (Karapetsas & Zygouris, 2012). In determining the number of students who are addicted to the internet, we used statistical frequency analysis to identify the average responses of the test. Also, we used analysis of variance with one independent variable to identify differences in how people respond according to whether they are addicted to the internet.

Results

The verification of the questionnaire responses of the Young (1996) concludes that 14.6% of the entire sample of young people who studied in this research protocol is addicted to internet. The results are shown in the graph below.

Figure 1. Percentage of young people addicted to the internet. The left column shows the young people who meet the criteria for addiction according to the rating scale and the right, the young control group.



At this point it is necessary to mention the differences in the responses of children according to the

research group to which they belong. For this purpose, a statistical analysis of variance with the independent variable if children qualify as addicted to the Internet or are in the control group. Specifically, in the first question (feel constantly engrossed by the internet) $F(1,98) 99,70 p < 0.001$. The second question (need to use internet with growth rates year) $F(1,98) 56,675 p < 0.001$. The third question $F(1,98) 18,740 p < 0.001$. The fourth question $F(1,98) 17,091 p < 0.001$. The fifth question (remain connected to internet longer than you originally planned) $F(1,98) 6,931 p = 0.01$. The sixth question $F(1,98) 20,950 p < 0.001$. The seventh question $F(1,98) 42,809 p < 0.001$. Finally in the eighth question $F(1,98) 22,036 p < 0.001$. Therefore, it is understood that 14.7% of respondents identified in our research as addicted to the internet tend statistically significant differences in their responses to the questionnaire addiction Young (1996), in relation to their peers enrolled in the control group.

Then, a correlation between the responses of children addicted to the internet compared with the responses of the children enrolled in the control group. The questions show statistically significant differences between the two groups are presented in the table below.

Table 1 Correlation of participants with regard to the responses to the CDI scale

Questions CDI	Correlation addicted children
I feel alone / the	0.276**
I make mistakes	0.225*
I have headaches	0.243*
I feel that no one loves me not	0.248*
I feel like I want to cry	0.210*
I'm sad / the	0.265**
I hate myself	0.310**
In the evenings I have insomnia	0.223*
Things are going well for me	0.257**
I think something bad	
will happen to me	0.290*
I have no appetite	0.208*

** The correlation is statistically significant at 0.01

* The correlation is statistically significant at 0.05

Since the presentation of the results is understood that children who did not have Internet addic-

tion answered questions from the highest CDI with significant difference compared with children who were found addicted to the internet. Indeed, the questions "I feel alone (5)", "I'm sad (19)", "I hate myself (21)", "Things are going well for me (23)¹", "I think something bad will happen to me (25)" "children of the control group were highly statistically significant difference in their responses compared with children who were addicted to the internet. In addition, a statistically significant difference in the responses of the participants found the questions "I errors (8)", "I have headaches (9)", "I feel that no one loves me (11)", "I feel like I want to cry (18)" "in the evenings I have insomnia (can not sleep) (22)" and "I have no appetite for food (26)".

In addition, a univariate statistical analysis to identify overall differences of children identified as addicted to the internet compared to children belonging to the control group. In this statistical analysis $F(1,98) 14,49$ $p < 0.001$. In a series of similar statistical analyzes relating to sex and age did not identify statistically significant differences and a $p > 0.05$

Discussion

The purpose of this research was to investigate the relationship between internet addiction and loneliness. Findings of the research showed a direct relationship of loneliness and addiction to the internet. It found that teens addicted to the Internet have higher rates of loneliness as opposed to non-addicted teenagers. Therefore we can through this research to observe the direct relationship between addiction and loneliness since it is a common finding in the scientific community.

Already in 1998 we have studies showing the relationship between the two psychological attitudes (Kraut, Patterson, Lundmark, Kiesler, Mukophadhyay & Scherlis, 1998, Young & Rogers, 1998). The Kraut in his research, which was conducted at a time when internet use was very limited, had to feed families with computers in order to carry out its conclusions. He found that the removal of internet users from socializing in turn leads to negative psychological states such as loneliness.

Specifically, the reduction of the social circle and the lack of communication in the family, leading to a lack of mental wellness.

But the interesting findings of the same research team four years later in the same research sample. Specifically in 2002 were found to have negative effects disappeared (Kraut, Kiesler, Boneva, Cummings, Helgeson, Crawford, 2002). The research record, as opposed to all other findings, that the more time people spend online, the more strengthened social relationships and domestic communication so effectively we communicate but having low quality characteristics.

Large-scale survey published by Nie, Hillygus, Erbring (Nie, Hillygus, Erbring 2000) led to the conclusion that materially affected the lives of users. Specifically, the survey shows high levels of loneliness users while finding negative effects on real interpersonal relationships.

The 2008 (Yen, Chih-Hung, Cheng-Fang, Sue-Huei, Wei-Lun, Cheng-Chung 2008) found that young people addicted to the Internet are characterized not only by loneliness and depression, but also have low self-esteem and show constantly unsatisfied .

In research published in 2011 (Guangheng Dong, Qilin Lu, Hui Zhou, Xuan Zhao, 2011) and involved 59 students, psychological characteristics were measured initially and when the students were not addicted to the internet and then as children became addicted to the use of . In the first stage of the survey, students were not addicted to the internet. After their addiction, found a year later, after using the assay detection of internet addiction Young, rates of loneliness, depression and anxiety were found much higher than average.

Finally, the research protocol was drafted, there are some limitations. Specifically, the sample of 100 children are small to draw firm conclusions correlation between depression and Internet addiction. Research should be done on a larger sample, but with better distribution.

The results of this research protocol is to be used in research with larger both in number and age protocol, which is currently carried out by the Laboratory of Neuropsychology at the University of Thessaly.

1. This question has reverse rating.

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