# INTERNET DEPENDENCE / SOCIAL NETWORKS AND THE DEVELOPMENT OF TEENAGE SOCIAL ANXIETY

Sonia IGNAT, PhD., Aurel Vlaicu University of Arad, Faculty of Educational Sciences, Psychology and Social Sciences, soniabudean@yahoo.com
Cristian GĂLUŢIU, Aurel Vlaicu University of Arad, Faculty of Educational Sciences, Psychology and Social Sciences, cristi.galutiu@gmail.com

#### **Abstract:**

Nowadays, because of the fast pace of life, which for many parents means less time spent with their children and less control over their lives, the latter spend extremely much time in front of the computer or smartphone. Thus parent-child communication in particular and face-to-face communication of young people in general have suffered greatly, and given the fact that in adolescence period the brain structure is developing, and during this period the personality of each individual crystallizes, thus there is a risk that some teenagers develop an anxious personality in real life social situations.

The aim of this paper is to examine the relationships between internet addiction, social anxiety, depression and lack of control in adolescents, motivated by the fact that this is a topic that addresses an acute problem facing today's society, and trends in the use of gadgets that provide access to the internet and social networks such as the phone, tablet or laptop is increasing from year to year.

**Keywords:** internet addiction, social anxiety, depression, lack of control

#### 1.1 Addiction: definitions and implications for quality of life

A term, or the concept it represents, can be said to have scientific unity when it meets the following criteria: it has a definition that can be formulated with reference to terms and concepts generally accepted as valid in a scientific discipline and designates information that they are not already represented in that discipline by other terms or concepts (Godman, 1990). Thus, to define addiction I chose to refer to a set of diagnostic criteria for addictive disorder presented in a format similar to DSM-III-R:

Addictive disorder (or addiction) is represented by:

- 1. A recurring failure to resist the individual's impulses to engage in a specified behavior
- 2. Increasing the feeling of tension even before the initiation of that behavior
- 3. Pleasure or relief when engaging in behavior
- 4. A feeling of lack of control while engaging in behavior
- 5. At least 4 of the following characteristics:
  - a. Frequent concern for behavior or activity that is preparatory to behavior
- b. Frequent involvement in behavior to a greater extent or for a longer period than expected
  - c. Repeated efforts to reduce or stop the behavior
- d. A long period of time spent in: activities necessary for behavior, involvement in behavior, or recovery from its effects

- e. Frequent involvement in behavior when expected to fulfill professional, academic, internal or social obligations
- f. Reducing or giving up important social, occupational and recreational activities due to behavior
- g. Continuation of behavior, despite awareness of a persistent or recurring problem of a social, financial, psychological, or physical nature that is caused or exacerbated by the behavior
- h. Tolerance: the need to increase the intensity or frequency of the behavior in order to achieve the desired effect or the diminished effect with a continuous behavior of the same intensity
  - i. Anxiety or irritability if unable to engage in behavior
- 6. Some symptoms of the disorder have persisted for at least a month, or have occurred repeatedly over a longer period of time.

Less formally, addiction can be defined as a process by which a behavior, which can function both to produce pleasure and to relieve internal discomfort, is used in a model characterized by: (1) recurrent failure behavior control (impotence) and (2) continuation of behavior despite significant negative consequences (non-maneuverability) (Godman, 1990).

#### 1.2. How addictive behavior is formed and what influences the brain

The word "addiction" is derived from a Latin term for "enslaved by" or "bound by." Anyone who has struggled to overcome an addiction, or tried to help someone else to do so, understands why.

Addiction has a long and strong influence on the brain, which manifests itself in three distinct ways: the craving for the object of addiction, loss of control over its use, and continued involvement in its use, despite the adverse consequences. Although overcoming addiction is possible, the process is often long, slow, and complicated. It took years for researchers and decision makers to come to an agreement.

In the 1930's, when researchers first began investigating what caused addictive behavior, they believed that people who developed addictions were somehow morally flawed or unwilling. Thus, addicts were treated by punishment or by encouraging them to give up that behavior (Chandler, 2009).

The scientific consensus has changed since then. Today we recognize addiction as a chronic disease that changes both the structure of the brain and its function. Just as cardiovascular disease harms the heart and diabetes affects the pancreas, addiction hijacks the brain. Addiction recovery certainly involves willpower, but it's not enough to "say no" - as the 1980s slogan suggests. Instead, people typically use a variety of strategies - including psychotherapy, medication, and self-care - while trying. to break the grip of an addiction (Knob, 2010).

Over the years, there have been other changes in the approach to addiction. For many years, experts believed that only strong alcohol and drugs could be addictive. However, neuroimaging technologies and more recent research have shown that certain enjoyable activities, such as gambling, shopping, or sex, can also take over the brain and cause addiction. Although the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) describes multiple addictions, each related to a specific substance or activity, there is a consensus that they may represent multiple expressions of a normal brain process (Chandler, 2009).

#### 1.3. The Internet and its impact on social life

The Internet has quickly become an essential part of everyday life. Children grow up in this environment, and the little ones now and future generations will actually look at it as a natural

component of life. Nowadays, young people use their laptop and mobile phone as tools to discuss and exchange "instant messages" with friends or schoolmates. Many use them as another way to connect with friends and family, especially when distance makes personal and telephone communication difficult (Hampton & Wellman 2001). People generally turn to the internet because they quickly find the information they need, such as news, health articles, and remedies for various problems, weather forecasts, sports results, or stock prices. Also, the internet is always used to combat boredom, and movies, online games or applications such as Youtube are often used for such purposes.

Today, no one disputes that the Internet has a significant impact on social life; but it generates differing views on the nature and value of this impact. Some researchers have argued that socializing through the internet is a poor and sterile form of socializing compared to traditional face-to-face interactions and therefore has negative consequences (loneliness and depression) for its users, as well as weakening friends and community.

Others believe that the Internet offers a new and different way of social interaction, which allows groups and relationships to form, which otherwise could not have happened, thus increasing and increasing social connectivity.

# 1.4. Internet, smartphone and social network addiction - general considerations

Internet addiction can be defined as an inability to control excessive internet use despite its negative consequences (Griffiths, 2000, Tang, Wei, Qin, Liu and Zhou, 2014) and which persists over a significant period (Kardefelt-Winther and et al., 2017). However, there is no general agreement on the definition of internet addiction. Research indicates that effective addiction is associated with the use of specific online activities, which means that each addiction is characterized by specific patterns of unadaptive behavior (Starcevic & Aboujaoude, 2015). When we talk about the addiction to the Internet, we must also consider the addiction to the mobile phone (smartphone), which nowadays, being connected to the Internet, is increasingly

Smartphone addiction (also known as communication addiction disorder) is a serious problem. According to recent research, smartphone addiction is growing rapidly. The Korean Ministry of Public Administration and Security reported that about 8.4% of Korean smartphone users are addicted to this device and about 10.1% of Koreans overuse social networks such as Facebook, Twitter and YouTube. Smartphone addiction can be described as a constant desire to communicate with people, even if there is no real need for communication.

replacing the laptop or computer.

Smartphone addiction is a real problem, and researchers have recognized ordinary and compulsive communication as a serious mental problem. It has also been established that the obsession with the smartphone is also responsible for the significant change in the brain's perception of the device.

Other studies in the UK have found another negative aspect of it, showing that anxiety symptoms increase when the user does not receive new messages, or when they are not near the phone.

Smartphones can be considered mental lifts, which can replace basic brain functions (eg the reminder that "remembers" for us). Another psychological impact is that users check their mobile phones very often, while they are at work, with family or even when they are with friends. Lookout, a mobile security company, conducted a survey of smartphone users in the US and found that 58% of smartphone users check their phones at least once an hour, and another 54% of respondents said that he checks his phone even while going to bed (Sarwar, 2013).

According to Whitbourne (2011), smartphones make people less smart. There have been concerns about the negative impact that smartphones have on human intelligence in terms of memory (Sparrow, Liu & Wegner, 2011), spatial orientation (Bohbot et al., 2011), and higher-level cognitive tasks. (Abramson et al., 2009). Cloete (2011) stated that laziness and procrastination also result from the use of modern communication technology.

Internet addiction does not refer to a clinical diagnosis, but to a model of potentially pathological behavior. Note the presence of the following symptoms:

- (i) a loss of control over behavior,
- (ii) conflict (internal and interpersonal)
- (iii) concern about overuse of the Internet
- (iv) using the internet to change one's mood
- (v) the tendency to take refuge in the online environment (Meerkerk, et al., 2009).

From the perspective of engaging in specific online activities, rather than focusing on Internet addiction itself, researchers have identified a number of activities that may be involved in Internet overuse, which can lead to substance-like symptoms (Yellowlees). & Marks, 2007). Among them, the excessive use of online video games (Kuss & Griffiths, 2012b), online gambling (Griffiths & Parke, 2010) and the use of online social networks such as Facebook, Tweeter or Instagram, seem to stand out den Eijnden, Meerkerk, Vermulst, Spijkerman, & Engels, 2008).

Internet addiction can be described by a new distinct diagnostic category, but should be examined in the context of addictive behavior: its symptoms, causes, and consequences.

According to our basic assumption, there are various significant similarities between the different types of addiction, regardless of their purpose, whether it is a psychotropic substance, gambling or the Internet. Some of the alarming symptoms and warning signs are: constant concern of the mind for the object of addiction (eg internet, alcohol); the attempt to hide the extent of the attachment to the object of the addiction and the subsequent lies about the extent of the involvement; withdrawal from other activities that were once enjoyable; social isolation; defensive attitudes and angry outbursts; psychological isolation; involvement in addictive activity as a way to escape reality; and continued involvement despite the negative consequences (Cash, Rae, Steel, & Winkler, 2012).

The hypothesis that addicts have a similar psychological profile has been supported by recent research (Dowling and Brown 2010). For example, both internet and gambling addiction are associated with high levels of stress, loneliness and low social support. These findings suggest that different types of addiction may be separated from each other and may often have occasional manifestations of the same kind.

This similarity of psychological profiles affects the treatment of these problems. First of all, the clinical psychologists who design the treatment should recognize the various manifestations of this phenomenon. Secondly, it should be noted that the most effective treatments for addictive behavior include both the treatment of specific symptoms (for example in the case of gambling or internet use) and the treatments used in the case of addictive behaviors in general. The success of the cognitive-behavioral therapy approach for addictions such as gambling suggests that this approach may also be effective for internet addiction. Finally, psychological problems such as depression, anxiety, stress and loneliness can affect the choice of treatment and its effectiveness.

It should be noted that the causal relationship between problematic addictive behavior and other psychological problems cannot be inferred from research to date. There is some evidence to suggest that psychological problems can lead to the development of addiction, but this temporal relationship needs to be further explored.

In conclusion, findings to date show that different types of addiction (eg gambling or internet addiction) can be separate disorders, but with a common underlying causation or common consequences. Finally, addicts need support to improve their mental functionality (Cash, Rae, Steel, & Winkler, 2012).

#### 3.1. Research objectives

The research underlying this paper aims to determine whether social and communication anxiety can occur among Internet-dependent adolescents as a result of online refugee, to the detriment of social contact and face-to-face communication. To achieve this goal, we proposed an experimental study, based on five questionnaires that were applied to high school adolescents. Another aspect that I wanted to analyze refers to the concept of "locus of control", starting from the hypothesis that there is a correlation between the type of locus of control and internet addiction, more precisely, I assumed that young people with locus of External controllers are more likely to develop symptoms of Internet addiction.

The aim of the study is to establish possible correlations between internet addiction and social and communication anxiety, depression, extroversion and locus of control in the case of adolescents, motivated by the fact that this is a topic that addresses an acute problem facing society. and face-to-face communication in adolescents is declining due to communication on social networks.

## 3.2. Research hypotheses

In investigating the causes and effects of Internet and social media addiction among adolescents, we assumed the following:

- 1. Adolescents addicted to the Internet will develop symptoms of social anxiety and communication at a higher level than other young people
- 2. Single children with their parents are more likely to become addicted to the internet
- 3. Boys are more likely than girls to become addicted to the internet
- 4. Adolescents with external locus of control are more prone to internet addiction than those with internal locus of control
- 5. Internet addiction is associated with an increase in the frequency of depression in adolescents
- 6. Introverted adolescents are more prone to addiction than extroverted adolescents

### 3.3. Tools used:

- 1. Internet Addiction Test (IAT: Young, 1998) Internet addiction test
- 2. Questionnaire on social anxiety and communication anxiety
- 3. Scale "Extraversion 20 items"
- 4. "Depressionless Scale" Questionnaire
- 5. Scala "Locus of control" a lui Rotter

# 3.4. Research sample

The present study was conducted on a sample of 40 subjects, high school students, from 3 different classes.

Gender membership is 20% male (8 boys) and 80% female (32 girls.

The questionnaires were answered by students from two high schools in Arad County. Out of the total subjects, 23 live in urban areas (57.5%) and 17 live in rural areas (42.5%). Also, 28 of the subjects (70%) still have siblings, while the remaining 12 (30%) are single with their parents.

In order to validate *hypothesis 1*, we used the t test and it is observed that we obtained the following results:

- in terms of social anxiety, a coefficient  $t=3.241\ \text{was}$  obtained, at a significance threshold of 0.010
- at communication anxiety a t = -0.2896 was obtained at a significance threshold lower than 0.05, which validates the hypothesis. There are no significant differences between dependents and non-dependents on the dimensions of social anxiety and communication anxiety. Looking of averages we notice that dependent people get an average of n = 20.75, and people who are not addicted to the internet get an average of 13, so it is clear that dependent people have higher social anxiety. Regarding the communication anxiety, the average obtained by the dependent ones is n = 23, and the average obtained by the independent ones is n = 38, ie the communication anxiety is higher in the independent people. Thus the hypothesis is validated.

*Hypothesis* 2. Single children with their parents are more likely to become addicted to the Internet and have increased social anxiety and communication anxiety.

In order to validate this hypothesis we used the t test, thus invalidating the hypothesis.

*Hypothesis 3.* Internet addiction is associated with an increase in the frequency of depression in adolescents

To test this hypothesis we used the pearson correlation coefficient, so we obtained the coefficient R = -78 at a significance threshold less than 0.05. Between internet addiction and lack of depression, this is why the coefficient is negative. Thus, the hypothesis is validated, internet addiction is associated with increased depression in adolescents.

Hypothesis 4. Introverted adolescents are more prone to addiction than extroverted adolescents

On the introversion dimension, we notice that the coefficient t = 3,038 is obtained at a significance threshold lower than 0.05, and in the table of averages we observe that on the introversion dimension, subjects with internet dependence obtain an average of 88, much higher than those who do not have an internet addiction who get an average of 56. Thus, the hypothesis is validated, introverted subjects are much more prone to internet addiction than normal users.

*Hypothesis 5*. There is a correlation between locus of control and internet addiction in the sense that adolescents with external locus of control are more likely to become addicted to the internet than those with internal locus of control.

To test this hypothesis we used the pearson correlation coefficient, a statistically insignificant coefficient was obtained, thus the hypothesis is invalidated, as there is no correlation between locus of control and internet dependence.

### **Conclusions and implications**

The Internet is a technological breakthrough, a new way of communicating and a new era with different characteristics in terms of information transfer and speed. The benefits of using the Internet are many, both professionally and socially. The fact that, after decades of this environment, mental health scientists have reached a point where they can observe pathological behavior associated with its maladaptive use may suggest that this environment has certain

attributes characteristic of addictions. It may suggest that its use meets certain needs of modern people, such as communication, information and entertainment, but especially that it allows the development of addictive behavior similar to that observed years before the invention of the Internet, as in the case of alcohol consumption.

Regardless of the terminology used to describe the phenomenon - Internet addiction, Internet addiction disorder, pathological use of the Internet, overuse of the Internet, mandatory use of the Internet - all terms describe more or less the same concept, namely that a person can be so involved in using the internet that she neglects other important aspects of her life. Whether or not it exists as a distinct diagnostic category, Internet addiction can be studied more effectively in the context of addictive behavior in general and the need to encourage individuals to develop addictive behavior with negative consequences for both themselves and society.

Among the negative consequences studied in this paper are social anxiety, communication anxiety and depression. Regarding the compulsive use of the Internet among adolescents, it is associated with negative effects such as social anxiety and communication anxiety, which is highlighted by the validation of the first hypothesis of this study. The results of the paper support the findings of previous research showing an association between low social skills and problematic internet use and that anxiety and depression have been positively correlated with this misuse.

There is a positive correlation between excessive use of online social networks and shyness, loneliness and avoiding relationships in real life. In addition, internet addicted teens are less extroverted and more socially anxious. Specifically, social anxiety is associated with a lack of confidence in relationship skills and a desire to create a positive impression on others. To avoid negative moods, socially anxious young people prefer to communicate on social networks over face-to-face encounters, as they have a low risk of making mistakes and being ashamed, so they manage to hide and control more, well the negative aspects of their behavior.

At least in the sample of this study, it appears that there are no differences between single parents and those who still have siblings in terms of Internet addiction, but this could be the subject of further studies on larger samples. , used other measuring instruments.

Regarding the link between internet addiction and adolescent depression, there seems to be a positive correlation between them, so internet addiction has a negative impact on mental health, and young people in the high-risk group should be identified and they should be offered psychological counseling.

A last aspect studied in this paper, aims at a possible correlation between the type of locus of control and the internet addiction among adolescents. It is well known that people with a locus of external control, ie those who are convinced that their fate is influenced by external factors, and believe that they have little control over the events in their lives, are more anxious, more depressed, with self-esteem. lower than those with locus of internal control, thus, we assumed that they are more vulnerable in becoming addicted to the Internet, but this hypothesis in this study was not validated. And this hypothesis could be the subject of a further study, because so far we have not found studies with conclusive results on the relationship between locus of control and internet addiction.

In conclusion, I would like to emphasize the importance of informing and educating young people and parents about the correct use of the Internet and online social networks, and the risks that young people are exposed to when they become vulnerable to the Internet, as they crystallize in adolescence. the personality of each individual and there is a risk that some

adolescents will develop an anxious personality and poor communication in real life social situations.

#### **References:**

- 1. American Psychiatric Association (2000). Diagnostic and statistical manual of mental disorders (4th ed., Text Revision). Washington, DC: Author.
- 2. Bohbot, V. D., Gupta, M., Banner, H., & Dahmani, L. (2011). Caudate nucleus-dependent response strategies in a virtual navigation task are associated with lower basal cortisol and impaired episodic memory. Neurobiology of learning and memory, 96 (2), pp. 173-180
- 3. Cash, H., Rae, C. D., Steel, A. H., & Winkler, A. (2012). Internet Addiction: A Brief Summary of Research and Practice. Current psychiatry reviews, 8(4), 292–298.
- 4. Cloete, A. (2011). Exploring the uses and gratification of facebook: A psychological study. (Masters research, The University of Pretoria).
- 5. Demir, Y., Kutlu, M. (2016). The relationship between loneliness and depression: mediation role of internet addiction. Educ. Process 5 97–105. 10.12973/edupij.2016.52.1 [CrossRef] [Google Scholar]
- 6. Fu, K.-W., Chan, W. S. C., Wong, P. W. C., & Yip, P. S. F. (2010). Internet addiction: Prevalence, discriminant validity and correlates among adolescents in Hong Kong. British Journal of Psychiatry, 196(6), 486-492.
- 7. Koob G.F., et al.(2010). Neurocircuitry of Addiction, Neuropsychopharmacology: Vol. 35, No. 1, pp. 217–38.
- 8. Kumar, S., Das, R.C., Prabhu, H.R.A., Bhat, P.S., Prakash, J., Seema, P. et al. (2013). Interaction of media, sexual activity and academic achievement in adolescents. Med J Armed Forces India; 69:138-43
- 9. Kormas, G., Critselis, E., Janikian, M., Kafetzis, D., & Tsitsika, A. (2011). Risk factors and psychosocial characteristics of potential problematic and problematic internet use among adolescents: A cross-sectional study. BMC Public Health, 11.
- 10. Kim, Y. R., Son, J. W., Lee, S. I., Shin, C. J., Kim, S. K., Ju, G., et al. (2012). Abnormal brain activation of adolescent internet addict in a ball-throwing animation task: Possible neural correlates of disembodiment revealed by fMRI. Progress in Neuro-Psychopharmacology & Biological Psychiatry, 39(1), 88-95.
- 11. Kuss, D. J., & Griffiths, M. D. (2012). Online gaming addiction in children and adolescents: A review of empirical research. Journal of Behavioral Addictions, 1(1), 1-20.
- 12. Lin, F., Zhou, Y., Du, Y., Qin, L., Zhao, Z., Xu, J., et al. (2012). Abnormal white matter integrity in adolescents with Internet addiction disorder: A tract-based spatial statistics study. Plos One, 7(1).
- 13. Sarwar, M. (2013). Impact of smartphone's on society. European Journal of Scientific Research, 98(2): 216-226.
- 14. Sava, S. (2016). Foblia Socială Cauze și remedii. Revista Psychologies.
- 15. https://www.psychologies.ro/cunoaste-te/fobia-sociala-cauze-si-remedii-2152323
- 16. Starcevic V. (2013). Is Internet addiction a useful concept? Aust N Z J Psychiatry; 47(1): 16–19.
- 17. Sparrow, B., Liu, J., & Wegner, D. M. (2011). Google effects on memory: Cognitive consequences of having information at our fingertips. Science, 333 (6043), pp. 776-778

- 18. Sawyer, M. S., Azzopardi S.P., Wickremarathne D. & Patton C. G., (2018). The age of adolescence. The Lancet Child & Adolescent Health, 2(3): 223-228
- 19. Schneider, M. (2013). Adolescence as a vulnerable period to alter rodent behavior. Cell Tissue Res 354, 99–106
- 20. Shapira, N. A., Goldsmith, T. D. K. P., Jr., Khosla, U. M., Mcelroy, S. L. (2000). Psychiatric features of individuals with problematic internet use. J. Affect. Disord. 57 267–272. 10.1016/S0165-0327(99)00107-X [PubMed] [CrossRef] [Google Scholar]
- 21. Sharifpoor, E., Khademi, M. J., Mohammadzadeh, A. (2017). Relationship of internet addiction with loneliness and depression among high school students. Int. J. Psychol. Behav. Sci. 7 99–102. [Google Scholar]
- 22. Alavi, S., Merathi, M. R., Janatifard, F. & Islami, M. (2010). The Study of the Relationship between Psychiatric Symptoms and Internet Addiction in university students in the City of Isfahan. Scientific Journal of Hamadan University of Medical Sciences and Health Services, 17 (2): 66-57.
- 23. Song, H., Zmyslinski-Seelig, A., Kim, J., Drent, A., Victor, A. (2014). Does Facebook make you lonely?: a meta analysis. Comput. Hum. Behav. 36 446–452. 10.1016/j.chb.2014.04.011 [CrossRef] [Google Scholar]
- Yuan, K., Qin, W., Wang, G., Zeng, F., Zhao, L., Yang, X., et al. (2011). Microstructure abnormalities in adolescents with Internet addiction disorder. Plos One, 6(6).
  - 24. Yao, M. Z., Zhong, Z. J. (2014). Loneliness, social contacts and internet addiction: a cross-lagged panel study. Comput. Hum. Behav. 30 164–170. 10.1016/j.chb.2013.08.007 [CrossRef] [Google Scholar]