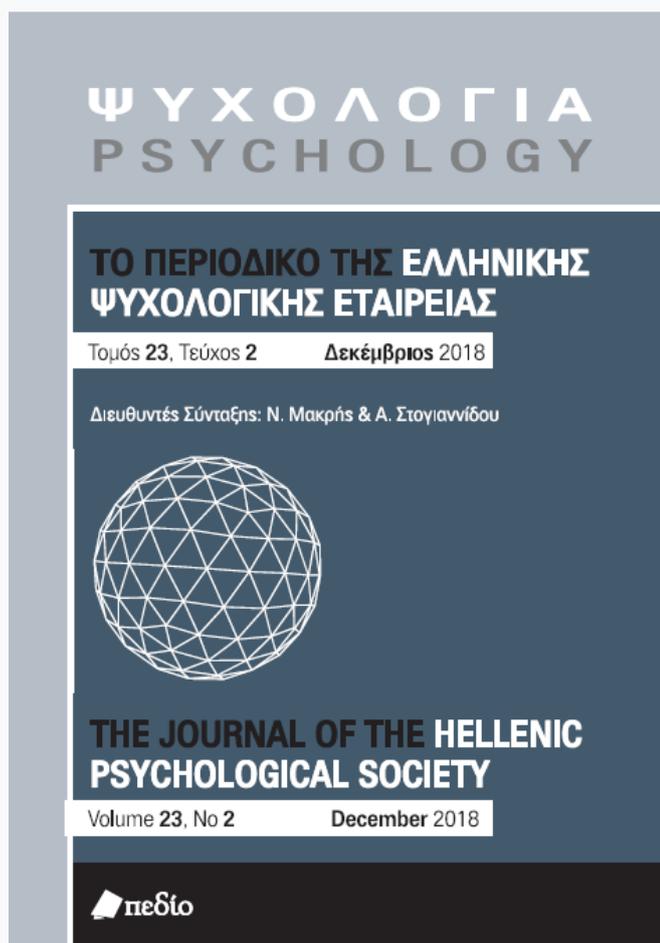


## Psychology: the Journal of the Hellenic Psychological Society

Vol 23, No 2 (2018)

Special Section - Media Psychology and Technology



### Relationship of Internet Addiction with Alexithymia and Childhood's Perceived Parenting in University Students

Panagiota Soranidou, Antonia (Dona) Papastylianou

doi: [10.12681/psy\\_hps.22573](https://doi.org/10.12681/psy_hps.22573)

Copyright © 2018, Panagiota Soranidou, Antonia (Dona) Papastylianou



This work is licensed under a [Creative Commons Attribution-ShareAlike 4.0](https://creativecommons.org/licenses/by-sa/4.0/).

#### To cite this article:

Soranidou, P., & Papastylianou, A. (Dona). (2018). Relationship of Internet Addiction with Alexithymia and Childhood's Perceived Parenting in University Students. *Psychology: The Journal of the Hellenic Psychological Society*, 23(2), 7-19. [https://doi.org/10.12681/psy\\_hps.22573](https://doi.org/10.12681/psy_hps.22573)

# Relationship of Internet Addiction with Alexithymia and Childhood's Perceived Parenting in University Students

PANAGIOTA SORANIDOU<sup>1</sup>, ANTONIA (DONA) PAPASTYLIANOU<sup>1</sup>

## ABSTRACT

Electronic media are integral part of everyday life and undoubtedly facilitate it on multiple levels. Internet is a useful work, knowledge (Papanikolaou, Makri, Magoulas, Chinou, Georgalas & Roussos, 2016), entertainment and information tool, but its limitless range often proves unsafe for the user. The present study, focuses on the relationship among web addiction, alexithymia and childhood's perceived parenting while controlling for the indirect effect of depression. For the aims of the present study, 206 Greek University students attending Social, Exact Sciences and Humanities Departments, mean age 21, filled in a battery of measures; the Young's Internet Addiction Test IAT (Young, 1998), the Toronto Alexithymia scale (Bagby, Parker & Taylor, 1994) the Center for Epidemiologic Studies Depression scale CES - D (Radloff, 1977), the Parental Bonding Instrument PBI of Parker, Tupling and Brown (1979) and a demographics form. Alexithymia presents significant direct association with Internet addiction, while the factors which mediate this relationship remain unclear. Findings are being discussed towards a possible review of the instruments measuring Internet addiction, as well as towards an approach of electronic media addiction from a different perspective with broader implications in therapeutic practice.

*Key words:* Internet addiction, Alexithymia, Perceived Parenting, Depression.

## Introduction

Internet addiction is being studied for almost two decades as an emerged problem referring to any online-related, compulsive behavior leading to impairment or distress (Young, 1998, 1999). It impacts an increasingly wide range of population (Ko, 2014), but mostly teen and young adult males (Dogan, Bozgeyikli & Bozdas, 2015; Stavropoulos,

Alexandraki & Motti-Stefanidi, 2013; Morahan-Martin & Schumacher, 2000).

Internet addiction has not been recognized officially as a disorder as there are no official diagnostic criteria of this excessive behavior yet (Musetti et al., 2016; Pinna et al., 2015). Although it is not included in the latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), it has been observed that this behavior shares

---

1. National and Kapodistrian University of Athens

Contact: Soranidou Panagiota, 29, Stratigou Nider str., Nea Smyrni, 17123 Athens, Greece. E-mail: soranidou.panagiota@gmail.com

Andonia Papastylianou: National and Kapodistrian University of Athens, Dept. of Philosophy, Pedagogics and Psychology, Section of Psychology, University Campus - Ilissia 157 84, E-mail: adpapist@ppp.uoa.gr

several features in common with impulse control disorders (Shapira et al., 2003). Great controversy among researchers about the diagnostic criteria as well as the term describing the behavior appropriately, led to various suggested terms, describing the net abuse, such as internet addiction (Young, 1998), pathological internet use (Davis, 2001), problematic internet use (Caplan, 2002, 2010) and compulsive internet use (Meerkerk, van Den Eijnden, Vermulst & Garretsen, 2009). In fact, the variety of perspectives in the field along with the lack of consensus about the criteria and the measurement of addiction, promote a fruitful debate but can be confusing at the same time (Wallace, 2014). Yet, following the relevant literature and the dispute about the accuracy of the term Internet addiction (Starcevic, 2013), this term will be used in the present paper, measured by Young's Internet Addiction test (I.A.T), as has been widely used for almost two decades. I.A.T seems well adapted to evaluate the concept of Internet addiction (Lai et al., 2013), showing good psychometric properties in Greek adults (Tsimtsiou et al., 2014) likewise is the most frequently used scale for Internet Addiction and appears to be the most validated assessment (Laconi, Rodgers, & Chabrol, 2014).

Excessive internet use often coexists with depression (Nie, Zhang, & Liu, 2017; Tsai & Lin, 2004; Vishnu & Mrs, 2017), loneliness (Morahan-Martin & Schumacher, 2003) low self-esteem (Nie, Zhang & Liu, 2017) and introversion (McIntyre, Wiener & Saliba, 2015; Van der Aa et al., 2009) but it has also been related to personality traits such as extraversion (Kraut et al, 2002), and openness to experience (Çelik, Atak, & Basal, 2012; Ozturk, Bektas, Ayar, Oztornaci, & Yagci, 2015; Papastylianou, 2013). Addictive behaviors can occur in response to unpleasant situations in somebody's life, leading to temporary escape or avoidance of facing negative emotions and thoughts. The purpose of addicts' engagement to the internet seems to be both escape from reality, or searching for new stimuli and emotional relief from problems, as it also happens with drugs, alcohol and food overconsumption (Young, 1999). Further, internet offers diversity in terms of self-presentation which

allows the user to impersonate identities that would not otherwise be feasible (Gauntlett, 2000 in Kourti, 2003). As Wallace (2014) stresses, people who appear to be addicted to the Internet are at the same time addicted to other behaviors, using the net as a delivery mechanism. Despite some net activities can be available offline, the user choose the safety of physical distance and anonymity.

Alexithymia was proposed in the 1970s by Sifneos (Sifneos, 1973, 1975; Sifneos, Apfel - Savitz, & Frankel, 1977) in order to describe the difficulties of some patients suffering from classical psychosomatic diseases, to verbalize their feelings, to separate emotions from bodily sensation and have imaginary mental activity (Vaslamatzis, 2003). It refers to the limited ability of emotional transaction and it has been associated with numerous psychological and psychiatric impairment while many studies underline the association with depression (Hendryx, Haviland, & Shaw, 1991; Honkalampi, Hintikka, Tanskanen, Lehtonen, & Viinamaki, 2000; Honkalampi, Saarinen, Hintikka, Virtanen, & Viinamaki, 1999; Marchesi, Brusamonti, & Maggini, 2000). This cognitive-emotional impairment in processing, setting and communicating emotions, is characterized by difficulty in identifying feelings, difficulty in describing feelings and externally oriented thinking (Oskis, Clow, Hucklebridge, Bifulco, Jacobs, & Loveday, 2013). Alexithymia includes deficits, both cognitively and emotionally, urging alexithymic individuals to use more physical, rather than verbal expressions to communicate their feelings (Lesser, 1981; Nemiah, 1978 ref. in King & Mallinckrodt, 2000; Sifneos, Apfel - Savitz & Frankel, 1977) as well as to exhibit limited creativity (Abuladze & Martskvishvili, 2016; Czernecka & Szymura, 2008; Fuchs, Kumar, & Porter, 2007).

A distinction between primary and secondary alexithymia emerged in the field, (Freyberger, 1977), suggesting that there may be two kinds of alexithymia. Primary alexithymia is an enduring psychological trait that does not alter over time and may lead to psychosomatic illness (Lesser, 1981). Primary alexithymia may derive from a psychic trauma occurring during childhood (Krystal, 1979) or from negative primary caregivers interactions

(Wearden, Cook & Vaught-Jones, 2003). Secondary alexithymia arises as a consequence of events occurring later in life (Messina, Beadle & Paradiso, 2014). It may have both psychological and organic origin (de Vente, Kamphuis & Emmelkamp, 2006) as events with psychological or medical significance occurring later in life, provide a direct or indirect effect on brain functioning (Wise, Mann, Mitchell, Hryvniak & Hill, 1990). Lastly, organic alexithymia is introduced as a third distinguished construct, in which alexithymia is caused by organic damage to brain structures involved in emotional processing through indirect or direct insults to the brain (Becerra, Amos, & Jongenelis, 2002). The contribution of genetic factors to individual differences in alexithymia has been underlined by Picardi et al. (2001) while numerous papers study the likelihood other genetic and socio-cultural contributions to affect the development of this structure (Ham et al., 2005; Jorgensen, Zachariae, Skytthe, & Kyvik, 2007). More recently, Moormann et al. (2008) suggested a new approach to alexithymia, introducing five alexithymia types, each being characterized by its own specific psychological make up.

Relevant research in the field, associates internet addiction with Alexithymia in students (Kandri, Bonotis, Floros, & Zafiropoulou, 2014; Lyvers, Karantonis, Edwards, & Thorberg, 2016; Yates, Gregor, & Haviland, 2012) and late adolescents (Schimmenti et al., 2017; Scimeca et al., 2014). Alexithymics tend to have increased Internet addiction proneness, compared to non alexithymics (Craparo, 2011; De Berardis et al., 2009). Besides, as stressed by Dalbudak et al. (2013), the severity of internet addiction in university students is positively correlated with alexithymia, but still remains unclear the direction and the factors that may mediate this relationship. As Kandri et al., (2014) report, more research is needed to study the way that university students interact in the cyberspace in addition to the alexithymia.

Alexithymia has been also studied in the literature in relation to parental and attachment factors. It has been found a negative correlation between Alexithymia and secure attachment style, and a positive one, with the avoidant and ambivalent (Be-

sharat & Khajavi, 2013). Childhood's experience with parents using vague response strategies in negative child's feelings, has a strong influence on the adulthood's emotional development (Carrere & Bowie, 2012; Roque & Verissimo, 2011). A meta-analysis of Thorberg, Young, Sullivan and Lyvers (2011), showed several relationships between alexithymia, the subscales and the parental care and protection parameters suggesting that parenting styles may be an important factor in the etiology and development of alexithymia.

Csala et al. (2015) report that maternal bonding impacts the depressive phenotypes. While Craparo (2011) claims that Internet addiction could represent a psychic retreat necessary to modulate the painful emotions in a subject with an insecure attachment. Overall, parenting styles, have been associated with Internet addiction in several studies. Relevant research in Asian adolescents, shows significant influence of parental behaviors on Internet addiction (Wu et al., 2016; Xiuqin et al., 2010; Yao, He, Ko, & Pang, 2014; Yen, Yen, Chen, Chen & Ko, 2007). Addicted adolescents rated parental rearing behaviors as over-intrusive, punitive, and lacking in responsiveness (Xiuqin et al., 2010). In Greek adolescents, Siomos et al. (2012) note a positive correlation between online addiction and perceived paternal protection as well as a negative link between internet addiction and paternal/maternal care. Similarly, according to Dogan et al., (2015) perceived parenting style vary significantly depending on Internet addiction level in adolescence. However, to our knowledge, little is known about the relationship among internet addiction and perceived parenting parameters in young adults. Kalaitzaki and Birtchnell (2014), have shown that parenting style has an indirect impact to internet addiction, through the mediating role of negative relating to others or sadness in later life. Yet, Yates et al., (2012) stressed the relationship between child maltreatment and pathological internet use in university students, partially explained by alexithymia as a mediator.

The present study investigates the relationship between internet addiction and alexithymia and Childhood's Perceived Parenting while controlling

for the effect of depression in an effort to approach Internet addiction from a perspective with broader implications in therapeutic practice.

### Aims of the Study

According to the literature review the aims of the study were set as follows: a. gender differences in Internet addiction would be expected, considering that men exhibit more Internet addiction than women, b. gender differences in the rest of the scales, c. a positive correlation between alexithymia and internet addiction, d. alexithymia predicts Internet addiction, e. perceived high parental protection and low care, both maternal and paternal, predict increased internet addiction and alexithymia scores, f. the relationship of perceived high parental protection and low care, both maternal and paternal and internet addiction and alexithymia are mediated by depression.

### Method

#### (i) Participants

A convenience sample of 206 universities students from different Greek universities from around the Country participated in the study. Of them 68% were women and 32% men, of a mean age 21 (SD = 1.9). Questionnaires were administered at the end of lectures after informing participants about the purpose of the study. Participation was anonymous and voluntary. There was no credit or compensation for participation.

#### (ii) Instruments

*The Centre for Epidemiologic Studies CES-D Depression Scale (CES-D - Radloff, 1977)*: The CES-D Scale, is a short self-report scale designed to measure depressive symptomatology in the general population. It consists of 20 questions in four sub-scales: Depressed Affect, Somatic retarded Activity, Positive Affect and Interpersonal Affect. Respondents are asked to choose from four possible responses in a Likert format, where “0” is “rare-

ly or none of the time (less than 1 day)”, and “3” is “most or all of the time (5-7 days)”. Scores range from 0 to 60 with higher scores reflect greater levels of depressive symptoms while lower scores reflect lower levels of symptoms. CES-D has been developed as a tool to detect the symptomatology of depression in general population, rather than as a scale to diagnose clinical depression. It is a reliable, valid and functional instrument, even in large samples. Other professionals apart from medical doctors can also use it i.e., psychiatrists (Bakker et al., 2000). The CES-D scale displays satisfactory convergence validity compared with other scales of depression and its sensitivity exceeds 0.90, whereas its potential to detect non- depressive cases is over 0.55 (Radloff, 1977; Weissman, Scolomskas, Pottenger, Prusoff, & Locke, 1977). Greek adaptation was made by Fountoulakis et al. (2001), showing high reliability and validity. The internal consistency of the CES-D was evaluated using the Cronbach’s alpha coefficient which was estimated at: 0.87.

*The Toronto Alexithymia Scale TAS-20 (Bagby, Parker & Taylor, 1994)*. It is a 20-item self-report scale that measures three intercorrelated dimensions of alexithymia: (1) difficulties identifying feelings (TAS A) (2) difficulties describing feelings (TAS B) and (3) externally oriented thinking (TAS C). TAS-20 items consist of statements presented in a five-point Likert scale. Higher score (> 60) on the scale is consistent with increased presence of alexithymic characteristics (Bagby, Taylor, & Parker, 1994; Taylor, Bagby, & Parker, 1997). Alexithymia was assessed with a validated Greek adaptation of the 20-item TAS-20 (Anagnostopoulou & Kioseoglou, 2002) with satisfactory psychometric qualities. Cronbach’s alpha for the full scale is 0.80, for TAS A 0.78, for TAS B 0.68 and TAS C 0.60 (Stalikas, Triliva & Roussi, 2012). In the present study, Cronbach’s coefficients were 0.81 for the full scale, 0.77 for TAS A, 0.74 for TAS B and 0.53 for TAS C.

*The Internet Addiction Test (IAT – Young, 1998)*. The questionnaire developed by Young comprises 20 self-reported items rated on a 5-item Likert scale, which measure mild, moderate and severe

levels of internet addiction. The Internet Addiction Test is the first validated and reliable measure of addictive Internet use. The participants are asked to rate the questions by answering on the following scale: 1 = Rarely, 2 = Occasionally, 3 = Frequently, 4 = Often, 5 = Always. Cronbach's alpha calculated for Internet Addiction Test in the present sample was 0.91.

*The Parental Bonding Instrument (Parker, Tupling, & Brown, 1979).* PBI is a 25 item self-report measure, rated on a 4-item Likert scale, of someone's recalled parenting experiences during the first 16 years of life. Four types of bonding can be extracted: Optimal parenting (high care and low protection), neglectful parenting (low care and low protection), affectionate constraint (high care and high protection) and affectionless control (low care and high protection). Care reflects parental warmth and affection versus indifference and rejection and control reflects parental control and intrusion versus encouragement of autonomy and independence. The Greek validated version of PBI, which performs good psychometric properties ( $\alpha = 0.76$ ) (Avagianou & Zafiropoulou, 2008) was used. In the present study the Cronbach's alpha calculated for the overall scale was 0.79.

*Demographics form.* The form was developed by the researchers for the purposes of the study. The form included questions on gender, age, place of study, place of origin, and intimate relationship status.

## Results

### (i) Statistical Methodology

All statistical calculations were performed using SPSS software, version 18.0. Normality of distribution was evaluated using the Kolmogorov-Smirnov Test. The scores for each scale used were IAD: [D(203) = .061,  $p = .07$ ], TAS total: [D(203) = .047,  $p = .20$ ], Maternal care: [D(203) = .14,  $p = .06$ ] Maternal protection: [D(203) = .09,  $p = .10$ ] Paternal care: [D(203) = .12,  $p = .10$ ] Paternal protection: [D(203) = .08,  $p = .06$ ] CES D: [D(203) = .11,  $p = .20$ ]

The statistical criteria used to test the aims of the study, were Pearson  $r$  correlation, as well as Simple Regression Analysis to assess the association between alexithymia and Internet addiction, Stepwise Multiple Regression Analysis for checking the association between perceived parenting parameters and Internet addiction, Mediation Analysis (Hayes, 2013) was used for controlling mediation effects, whilst T-test for independent samples was used in order to test for gender differences in certain scales and sub scales of the study.

In terms of discriptives, 42% of the participants were attending Social Sciences, 37% Exact Sciences and 20% Humanities. Regarding the area of the study, 79% were studying in large urban centers and 21% in urban areas. Moreover, 65% of the sample stated that they did not have a stable partnership for more than a year.

With respect to Internet addiction according to the criteria set by Young (1996), 3% involved in severe addiction while 54% in moderate addiction. A considerable percentage 59% of them, stated that they use the internet for fun, 24.8% for work, and 14.1% for both activities, while 1.4% do not use the Internet at all. Overall, those with moderate addiction appear to be male, aged 18-20, mainly studying in social sciences.

As far as the total alexithymia score was concerned, 14% of the participants noted as alexithymics, 63% as non alexithymics while 23% scored possible alexithymia. With regard to the CES-D scale it was found that 9.2% of participants stated high levels of depression, 19.4% medium, 15% low, whilst 56.3% were found to be non-depressive. The mean CES-D score  $\pm$  SD:  $16 \pm 9.40$ . Of the total participants, 3% perceived their mother's parenting as optimal, 25.2% as affectionless controlled, 24.3% as affectionate constrained and 9.7% as neglectful. Respectively, father's parenting, was perceived as optimal by the 41, 3% of the participants, affectionless controlled by the 19.4%, affectionate constrained by the 21.8%, and as neglectful by the 16.5%. Men ( $M = 47.12$ ,  $SD = 12.28$ ) exhibit higher Internet addiction than women ( $M = 40.96$ ,  $SD = 11.81$ ):  $t(204) = 3.44$ ,  $p = .001$ . While no statistically significant gender difference were detected

**Table 1**  
**Coefficients among Alexithymia, the subscales and the Web Addiction**

	1	2	3	4	5
1. Internet Addiction	-				
2. Alexithymia	.371**	-			
3. Difficulty Identifying Feelings	.368**	.368**	-		
4. Difficulty Describing Feelings	.339**	.339**	.339**	-	
5. Externally - Oriented Thinking	.128	.626**	.262**	.276**	-

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

**Table 2**  
**Simple Regression Regarding Alexithymia's association to internet addiction (N = 205)**

Predictor	B	SE B	beta
Alexithymia	0.42***	0.07	0.37

Note. \*\*\*  $P < .001$ . Variable criterion: Internet Addiction.  $R^2 = 0.14$ ,  $F(1, 204) = 32.63$ ,  $p < .001$ .

in the rest of scales and subscales of the study.

Pearson correlation coefficient test was conducted to investigate Alexithymia's association to Internet addiction, showed statistically significant correlation between the two variables  $r(206) = 0.37$ ,  $p < .01$ , likewise between Alexithymia and the subscales of Difficulty Identifying Feelings  $r(206) = 0.37$ ,  $p < .01$  and Alexithymia with Difficulty Describing Feelings  $r(206) = 0.34$ ,  $p < .01$  (Table 1).

Simple Regression Analysis was conducted to determine Alexithymia as predictor of Internet addiction. The total Alexithymia score of participants was used as the predictor variable. Regression Analysis showed that Alexithymia ( $b = 0.37$ ,  $t = 5.71$ ,  $p < .001$ ) contributes to a statistically significant level in predicting the criterion variable. The cross-link ratio was equal to 0.37, the adjusted coefficient of determination  $R^2$  was equal to 0.13 and the coefficient of determination  $R^2$  was equal to 0.14. Therefore, 14% of the variance concerning Internet addiction may be explained by the effect of Alexithymia (Table 2).

Stepwise Multiple Regression Analysis revealed weak direct effect of perceived parental care and protection to Internet addiction. It appears that 6% of the variance concerning Internet addiction may be explained by the effect of father's care

and mother's protection. Similarly, only the 4% of the variance concerning of total Alexithymia is explained by the effect of father's care.

Further, a Mediation Analysis controlling for mediating effects of depression between Internet addiction and perceived parenting parameters due to the weak direct effects, no further control could be conducted. Concerning the hypothesis of depression as mediator between Alexithymia and Internet addiction, the analysis conducted was partially proved as non-significant indirect effect of Depression between Alexithymia and Internet addiction was shown indicated by confidence intervals  $b = .07$ , BCa CI  $[-.004, .16]$ .

## Discussion

The association between Internet addiction, alexithymia and childhood's perceived parenting was studied in a sample of university students, controlling for depression as mediator. As it was hypothesized, men exhibit higher Internet addiction than women yet, no significant gender difference were detected in the rest of scales and subscales. Furthermore, the second hypothesis regarding the association between Internet addiction and

alexithymia was shown, indicating that Alexithymics tend to over-use Internet services. Statistically significant positive correlation between alexithymia and Internet addiction was also shown and furthermore alexithymia appears to be predictor of Internet addiction as well. This finding is in line with Scimeca et al., (2014) who found in their study that alexithymic participants reported higher internet addiction scores, while Lyvers et al. (2016) noted statistically significant and positive correlation between the two variables. Probably, lack of emotional awareness facilitates excessive online engagement. Since the Internet is a place of relaxation and escape from the pressures of reality (Suler, 1999), a person with alexithymia actually soothes the tension coming from emotional confusion, as happens with substance abuse or alcohol, operating as a mechanism for dealing with unpleasant emotions and life's difficulties.

Contrary to the findings outlined in literature review, perceived parenting parameters indicate weak association both to alexithymia and internet addiction. With regard to alexithymia, controversial findings due to the vague origin of this concept has been the issue also in a study by Kooiman, Spinhoven, Trijsburg and Rooijmansa (1998), checking the relation of alexithymia to disturbances in early parent-child relationship that has not been evidenced in a sample of psychiatric outpatients. Moreover, it has been underlined the substantial contribution of genetic factors during development (Ham et al., 2005; Jorgensen et al., 2007) and the individual differences (Picardi et al., 2001) of alexithymia. With regard to the complexity of these associations, Thorberg, Young, Sullivan and Lyvers (2011) recommend further research to explore the mechanisms of learning about emotions from attachment figures.

As far as the association of perceived parenting with internet addiction is concerned, the existent literature, focuses mostly on younger ages, or variables relevant to parenting, such as maltreating (Yates et al., 2012) and less to the retrospective perceptions about parenting in young adults as in this paper. Parenting parameters have been associated to internet addiction in adolescence (Dogan, Bozge-

yikli, & Bozdas, 2015; Siomos et al., 2012; Xiuqin et al., 2010; Wu et al., Yao et al., 2014; Yen et al., 2007; 2016), while young adults have been studied much less (Kalaizaki & Birtchnell, 2014). In fact, our findings partially contradict to those of Kalaizaki and Birtchnell (2014) as in their study parenting style had an indirect impact on internet addiction. Despite minor differences in the mean age of participants in the two studies, differences in the type of education of the samples, recruited from Greek universities in this study whilst Greek technical high schools and Technological Education Institute in their study, might differentiate the participants' response. Scrutinizing research might explain sufficiently how the level and content of tertiary education studies could affect the perception of early parental experience, and shape the way participants think, assimilate and interpret early experiences later in life (if this is the case). Furthermore, Taylor (1989) reports that healthy human often distort information incongruent with their desired self-perceptions by removing negative information and creating positive illusions that help them cope. Thus, as defense mechanisms buffer possible perceptions of internal or external threat (Weinberger, 1998), parental recollection from the past, may not be a sufficient indicator for the real impact of parenting in internet behavior. Hence, more research in young adults, regarding parents' perception about parenting would be enlightening, to clarify the interaction of those parameters with internet addiction.

In accordance to the findings by Dalbudak et al. (2013), mediation analysis did not reveal a mediation of depression among internet addiction and alexithymia. Thus, the direction and possible mediators of this relationship remain unclear as Dalbudak et al. stress.

The enormous variety of internet activities concerning people of every age, cultural, or educational background (Abaci, Kazaz, & Basa, 2013; Pew Research Center, 2017), sets the net life, a meaningful, fascinating, peculiar, and possibly dangerous at some point condition, marking the transition to a digital era of human interplay. The addiction defining lines and the relevant measuring means, should perhaps be redefined taking into consideration

those who according to Wallace (2014) use the net as a delivery mechanism. Accordingly, based on the literature that associates internet addiction with extraversion (Kraut et al., 2002), and openness to experience (Çelik et al., 2012; Ozturk et al., 2015; Papastylianou 2013) in terms of the Big-Five personality theory (Costa & McCrae, 1992) likewise considering alexithymia as a reductive factor of creativity (Abuladze & Martskvishvili, 2016; Czernecka & Szymura, 2008; Fuchs et al., 2007), internet addiction could smooth the path of a latent creative expression. Thus, we suggest that therapeutic practices, utilizing and implementing art expression, might help alexithymic internet addicts to define their emotional needs, as similar practices prove helpful for alexithymics per se (Heiman, Strnad, Weiland, & Wise, 1994; Meijer-Degen & Lanssen, 2006).

### Limitations

This study employed a cross-sectional design using self-report measures in a convenience sample, which limits the generalizability of the findings. Furthermore, the sample measured for addiction was non clinical while specific net activities by which users are preoccupied could possibly specify what exactly a web addict is looking for. Thus, it would be fruitful in a future relevant study, to estimate the association between user's emotional awareness and characteristics of specific internet activities in clinical and non-clinical samples.

### References

- Abaci, R., Kazaz, N., & Basa, B. (2013). The internet addiction of Kosovo and Turkey elderly people. *Social and Behavioural Sciences*, 103, 1104-1117.
- Abuladze, N., & Martskvishvili, K. (2016). No words for emotions: emotional creativity and alexithymia in art. *Problems of Psychology in the 21<sup>st</sup> Century*, 10(2), 62-68.
- Anagnostopoulou, T., & Kioseoglou, G. (2002). The Toronto Alexithymia Scale - TAS 20 [in Modern Greek]. In A. Stalikas, S. Triliva, & P. Roussi. (Eds), *Psychometric tools in Greece* (100-101). Athens: Ellinika Grammata.
- Avagianou, P. A., & Zafiropoulou, M. (2008). Parental bonding and depression: Personality as a mediating factor. *International Journal of Adolescent Medicine and Health*, 20(3), 261-269.
- Bagby, R. M., Parker, J. D. A., & Taylor, G. J. (1994). The twenty-item Toronto Alexithymia Scale-I. Item selection and cross-validation of the factor structure. *Journal of Psychosomatic Research*, 38, 23-32.
- Bagby, R. M., Taylor, G. J., & Parker, J. D. A., (1994). The twenty-item Toronto Alexithymia Scale-II. Convergent, discriminant, and concurrent validity. *Journal of Psychosomatic Research*, 38, 33-40.
- Bakker, A. B., Schaufeli, W. B., Demerouti, E., Janssen, P. P. M., Van der Hulst, R., & Brouwer, J. (2000). Using equity theory to examine the difference between burnout and depression. *Anxiety, Stress, and Coping*, 13, 247-268.
- Becerra, R., Amos, A., & Jongenelis, S. (2002). Organic alexithymia: a study of acquired emotional blindness. *Brain Injury*, 16(7), 633 -645. doi: 10.1080/02699050110119817
- Besharat, M. A., & Khajavi, Z. (2013). The relationship between attachment styles and alexithymia: Mediating role of defense mechanisms. *Asian Journal of Psychiatry* 6, 571-576.
- Caplan, S. E. (2002). Problematic Internet use and psychosocial well-being: development of a theory-based cognitive-behavioral measurement instrument. *Computers in Human Behavior*, 18, 553-575.
- Caplan, S. E. (2010). Theory and measurement of generalized problematic Internet use: A two-step approach. *Computers in Human Behavior*, 26, 1089-1097.
- Carrere, S., & Bowie, B. H. (2012). Like parent, like child: parent and child emotion dysregulation. *Archives of Psychiatric Nursing*, 26 (3), 23-30.
- Çelik, S., Atak, H., & Basal, A. (2012). Predictive role of personality traits on internet addiction. *Turkish Online Journal of Distance Education- TOJDE*, 13(4), 10-24.
- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- Craparo, G. (2011). Internet addiction, dissociation, and alexithymia. *Procedia -Social and Behavioral Sciences*, 30, 1051-1056.
- Csala, I, Egervari, L., Dome, P., Faludi, G., Dome, B., & Lazary, J. (2015). The possible role of maternal bonding style and CHRN2 gene polymorphisms in nico-

- time dependence and related depressive phenotype. *Progress in Neuro-Psychopharmacology & Biological Psychiatry*, 59, 84-90.
- Czernecka, K., & Szymura, B. (2008). Alexithymia – Imagination – Creativity. *Personality and Individual Differences*, 45, 445-450.
- Dalbudak, E., Evren, C., Aldemir, S., Coskun, K. S., Ugurlu, H., & Yildirim, F. G. (2013). Relationship of internet addiction severity with Depression, anxiety, and alexithymia, temperament and character in university students. *Cyberpsychol Behav Soc Netw*, 16(4), 272-278.
- Davis, R.A. (2001). A cognitive-behavioral model of pathological internet use. *Computers in Human Behavior*, 17, 187-195.
- De Berardis, D., D'Albenzio, A., Gambi, F., Sepede, G., Valchera, A., Conti, C. M., Fulcheri, M., Cavuto, M., Ortolani, C., Salerno, R. M., Serroni, N., & Ferro, F. M. (2009). Alexithymia and its relationship with dissociative experiences and internet addiction in a non-clinical sample. *CyberPsychology & Behaviour*, 12(1), 67- 69. doi: 10.1089/cpb.2008.0108
- De Vente, W., Kamphuis, J. H., & Emmelkamp, P. M. (2006). Alexithymia, risk factor or consequence of work-related stress? *Psychother Psychosom* 75, 304-311.
- Dogan, H., Bozgeyikli, H., & Bozdas, C. (2015). Perceived parenting styles as predictor of internet addiction in adolescence. *International Journal of Research in Education and Science (IJRES)*, 1(2), 167-174.
- Fountoulakis, K., Iacovides, A., Kleanthous, S., Samolis, S., Kaprinis, S., Sitzoglou, K., Kaprinis, G., & Bech, P. (2001). Reliability, validity and psychometric properties of the Greek translation of the Center for Epidemiological Studies- Depression (CES- D) scale. *BMC Psychiatry*, 1(3). doi: 10.1186/1471-244X-1-3
- Freyberger, H. (1977). Supportive psychotherapy techniques in primary and secondary alexithymia. *Psychother Psychosom*, 28, 337-342.
- Fuchs, G., Kumar, V. K., & Porter, J. (2007). Emotional creativity, alexithymia, and styles of creativity. *Creativity Research Journal*, 19(2), 233-245.
- Ham, B. J., Lee, M. S., Lee, Y. M., Kim, M. K., Choi, M. J., Oh, K. S., Jung, H. Y., Lyoo, I. K., & Choi, I. G. (2005). Association between the Catechol O-Methyltransferase Val108/158Met Polymorphism and Alexithymia. *Neuropsychobiology*, 52, 151-154.
- Hayes, A. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Retrieved from <http://www.afhayes.com/introduction-to-mediation-moderation-and-conditional-process-analysis.html>
- Heiman, M., Strnad, D., Weiland, W., & Wise, T. N. (1994). Art Therapy and Alexithymia. *Art therapy*, 11(2), 143-146. doi: 10.1080/07421656.1994.10759067
- Hendryx, M. S., Haviland, M. G., & Shaw, D. G. (1991). Dimensions of alexithymia and their relationship to anxiety and depression. *Journal of Personality Assessment*, 56, 227-237.
- Honkalampi, K., Hintikka, J., Tanskanen, A., Lehtonen, J., & Viinamaki, H. (2000). Depression is strongly associated with alexithymia in the general population. *Journal of Psychosomatic Research*, 48, 99-104.
- Honkalampi, K., Saarinen, P., Hintikka, J., Virtanen, V., & Viinamaki, H. (1999). Factors associated with alexithymia in patients suffering from depression. *Psychother Psychosom*, 68, 270-275.
- Jorgensen, M. M., Zachariae, R., Skytthe, A., & Kyvik, K. (2007). Genetic and environmental factors in alexithymia: A population-based study of 8,785 Danish Twin pairs. *Psychother Psychosom*, 76(6), 369-375.
- Kalaitzaki, A. E., & Birtchnell, J. (2014). The impact of early parenting bonding on young adults' Internet addiction, through the mediation effects of negative relating to others and sadness. *Addictive Behaviors*, 39(3), 733-736. doi: 10.1016/j.addbeh.2013.12.002
- Kandri, T. A., Bonotis, K. S., Floros, G. D., & Zafiropoulou, M. M. (2014). Alexithymia components in excessive internet users: A multi-factorial analysis. *Psychiatry Research*, 220, 348-355.
- King, J., & Mallinckrodt, B. (2000). Family environment and alexithymia in clients and non-clients. *Psychotherapy Research*, 10(1), 78-86.
- Ko, J-H. (2014). *An exploratory study on the characteristics of the elderly internet addiction*. Paper presented at the 20th IAGG World Congress of Gerontology and Geriatrics. Seoul, Health & Medicine.
- Kooiman, C. G., Spinhoven, P., Trijsburg, R. W., & Rooijmans, H. G. M. (1998). Perceived parental attitude, alexithymia and defense style in psychiatric outpatients. *Psychother Psychosom*, 67, 81- 87.
- Kourti, E. (2003). *Communication in the internet*. Athina: Ellinika Grammata [In Greek]
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues*, 58, 49-74.
- Krystal, H. (1979). Alexithymia and psychotherapy. *American Journal of Psychotherapy*, 33(1), 17- 31.
- Laconi, S., Rodgers, R.F., & Chabrol, H. (2014). The measurement of internet addiction: a critical review of

- existing scales and their psychometric properties. *Computers in Human Behavior*, 41, 190-202.
- Lai, C. M., Mak, K. K., Watanabe, H., Ang, R. P., Pang, J. S., & Ho, R. C. (2013). Psychometric properties of the Internet Addiction Test in Chinese adolescents. *Journal of Pediatric Psychology Advance Access*, 38(7), 794-807.
- Lesser, I.M. (1981). A review of the alexithymia concept. *Psychosomatic Medicine*, 43(6), 531-543.
- Lyvers, M., Karantonis, J., Edwards, M.S., & Thorberg, F.A. (2016). Traits associated with internet addiction in young adults: Potential risk factors. *Addictive Behaviours Reports*, 3, 56-60.
- Marchesi, C., Brusamonti, E., & Maggini, C. (2000). Are alexithymia, depression, and anxiety distinct constructs in affective disorders. *Journal of Psychosomatic Research*, 49, 43-49.
- McIntyre, E., Wiener, K., & Saliba, A. J. (2015). Compulsive Internet use and relations between social connectedness, and introversion. *Computers in Human Behavior*, 48, 569-574.
- Meerkerk, G.J., van Den Eijnden, R.J.J.M., Vermulst, A.A., & Garretsen, H.F.L. (2009). The compulsive internet use scale (CIUS): some psychometric properties. *CyberPsychology and Behavior*, 12, 1-6.
- Meijer-Degen, F., & Lansens, J. (2006). Alexithymia - A challenge to art therapy: The story of Rita. *The Arts in Psychotherapy*, 33, 167-179
- Messina, A., Beadle, J. N., & Paradiso, S. (2014). Towards a classification of alexithymia: primary, secondary and organic. *Journal of Psychopathology*, 20, 38-49.
- Moormann, P. P., Bermond, B., Vorst, H., Bloemendaal, A.F.T., Teijn, S. M., & Rood, L. (2008). New avenues in alexithymia research: The creation of alexithymia types. In A. Vingerhoets, I. Nyklicek, & J. Denollet (Eds.), *Emotion regulation* (pp. 27-42). New York: Springer.
- Morahan-Martin, J., & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in Human Behavior*, 16(1), 13-29.
- Morahan-Martin, J., & Schumacher, P. (2003). Loneliness and social uses of the Internet. *Computers in Human Behavior*, 19(6), 659-671.
- Musetti, A., Cattivelli, R., Giacobbi, M., Zuglian, P., Ceccarini, M., Capelli, F., Pietrabissa, G., & Castelnuovo, G. (2016). Challenges in internet addiction disorder: is a diagnosis feasible or not? *Front. Psychol.*, 7, 842. doi: 10.3389/fpsyg.2016.00842
- Nie, J., Zhang, W., & Liu, Y. (2017). Exploring depression, self-esteem and verbal fluency with different degrees of internet addiction among Chinese college students. *Comprehensive Psychiatry*, 72, 114-120.
- Oskis, A., Clow, A., Hucklebridge, F., Bifulco, A., Jacobs, C., & Loveday, C. (2013). Understanding alexithymia in female adolescents: The role of attachment style. *Personality and Individual Differences*, 54, 97-102. doi: 10.1016/j.paid.2012.08.023
- Ozturk, C., Bektas, M., Ayar, D., Oztornaci, B. O., & Yagci, D. (2015). Association of personality traits and risk of internet addiction in adolescents. *Asian Nursing Research (Korean Soc Nurs Sci)*, 9(2), 120-124. doi: 10.1016/j.anr.2015.01.001
- Papastylianou, A. (2013). Relating on the internet, personality traits and depression: research and implications. *The European Journal of Counselling Psychology*, 2(1), 65-78.
- Parker, G., Tupling, H., & Brown, L. B. (1979). A Parental Bonding Instrument. *British Journal of Medical Psychology*, 52(1), 1-10. doi: 10.1111/j.2044-8341.1979.tb02487.x
- Pew Research Center. (2017). *Internet/Broadband Fact Sheet*. Retrieved from <http://www.pewinternet.org/fact-sheet/internet-broadband/>
- Picardi, A., Fagnani, C., Gigantesco, A., Toccaceli, V., Lega, I., & Stazi, M. A. (2011). Genetic influences on alexithymia and their relationship with depressive symptoms. *Journal of Psychosomatic Research*, 71, 256-263.
- Pinna, F., Dell'Osso, B., Di Nicola, M., Janiri, L., Altamura, A.C., Carpiniello, B., & Hollander, E. (2015). Behavioural addictions and the transition from DSM-IV-TR to DSM-5. *Journal of Psychopathology*, 21, 380-389.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385-401.
- Roque, L., & Verissimo, M. (2011). Emotional context, maternal behavior and emotion regulation. *Infant Behavior and Development*, 34 (4), 617-626.
- Schimmenti, A., Passanisi, A., Caretti, V., Marca, L. L., Granieri, A., Iacolino, C., Gervasi, A. M., Maganuco, N. R., & Billieux, J. (2017). Traumatic experiences, alexithymia, and Internet addiction symptoms among late adolescents: A moderated mediation analysis. *Addictive Behaviors*, 64, 314-320
- Scimeca, G., Bruno, A., Cava, L., Pandolfo, G., Rosaria M., Muscatello, A., & Zoccali, R. (2014). The Relationship between Alexithymia, Anxiety, Depression, and Internet Addiction Severity in a Sample of Italian High

- School Students. *The Scientific World Journal*, 2014, doi:10.1155/2014/504376
- Shapira, N. A., Lessig, M., Goldsmith, T., Szabo, S., Lazoritz, M., Gold, M., & Stein, D. J. (2003). Problematic Internet use: proposed Classification and diagnostic criteria. *Depression and Anxiety*, 17(4), 207-216. doi: 10.1002/da.10094
- Sifneos, P. E. (1973). The prevalence of 'alexithymic' characteristics in psychosomatic patients. *Psychother Psychosom*, 22, 255-262.
- Sifneos, P. E. (1975). Problems of psychotherapy of patients with alexithymic characteristics and physical disease. *Psychother Psychosom*, 26, 65-70.
- Sifneos, P. E., Apfel-Savitz, R., & Frankel, F. H. (1977). The phenomenon of "alexithymia". Observations in neurotic and psychosomatic patients. *Psychother Psychosom*, 28, 47-57.
- Siomos, K., Floros, G., Fisoun, V., Dafouli, E., Farkonas, N., Sergentani, E., Lamprou, M., & Geroukalis, D. (2012). Evolution of Internet addiction in Greek adolescent students over a two-year period; the impact of parental bonding. *European Child & Adolescent Psychiatry*, 21, 211-219. doi: 10.1007/s00787-012-0254-0
- Stalikas, A., Triliva, S., & Roussi, P. (2012). *The psychometric tools in Greece*. Athina: Pedio. [In Greek]
- Starcevic, V. (2013). Is Internet addiction a useful concept? *Aust N Z J Psychiatry*, 47(1), 16-19.
- Stavropoulos, V., Alexandraki, K., & Motti-Stefanidi, F. (2013). Recognizing internet addiction: Prevalence and relationship to academic achievement in adolescents enrolled in urban and rural Greek high schools. *Journal of Adolescence*, 36, 565-576. doi:10.1016/j.adolescence.2013.03.008
- Suler, J. R. (1999). To get what you need: Healthy and pathological Internet use. *CyberPsychology and Behavior*, 2, 355-393.
- Taylor, S. E. (1989). *Positive Illusions. Creative self – deception and the healthy mind*. New York: Basic Books.
- Taylor, J. G., Bagby, R. M., & Parker, J. D. (1997). *Disorders of affect regulation: Alexithymia in medical and psychiatric illness*. United Kingdom: Cambridge University Press.
- Thorberg, F. A., Young, R. McD., Sullivan, K. A., & Lyvers, M. (2011). Parental bonding and alexithymia: a meta – analysis. *European Psychiatry*, 26(3), 187-193.
- Tsai, C., & Lin, S. (2004). Internet addiction of adolescents in Taiwan: an interview study. *CyberPsychology & Behavior*, 6(6), 649-652.
- Tsimtsiou, Z., Haidich, A. B., Kokkali, S., Dardavesis, T., Young, K. S., & Arvanitidou, M. (2014). Greek version of the internet addiction test: a validation study. *Psychiatric Q.*, 85(2), 187-195. doi: 10.1007/s11126-013-9282-2
- Van der Aa, N., Overbeek, G., Engels, R. C., Scholte, R. H., Meerkerk, G.-J., & Van den Eijnden, R. J. (2009). Daily and compulsive internet use and well-being in adolescence: a diathesis–stress model based on big five personality traits. *Journal of Youth and Adolescence*, 38(6), 765-776. doi: 10.1007/ s10964-008-9298-3
- Vaslamatzis, G. (2003). Arthro Suntaxis [Editorial article]. *Psychiatriki*, 14(1), 6-7. [In Greek]
- Vishnu, H., & Mrs, N. (2017). A correlation study on the effect of internet addiction on depression among adults at selected college, Rajcot. *International Journal of Advances in Nursing Management*, 5(1), 9-14.
- Wallace, P. (2014). Internet addiction disorder and youth. There are growing concerns about compulsive online activity and that this could impede students' performance and social lives. *Science & Society*, 15(1), 12-16. doi: 10.1002/embr.201338222
- Wearden, A., Cook, L., & Vaughan-Jones, J. (2003). Adult attachment, alexithymia, symptom reporting, and health-related coping. *Journal of Psychosomatic Research*, 55, 341-347.
- Weinberger, D. A. (1998). Defenses, personality structure, and development: integrating psychodynamic theory into a typological approach to personality. *Journal of Personality*, 66(6), 1061-1080.
- Weissman, M. M., Scolomskas, D., Pottenger, M., Prusoff, B. A., & Locke, B. Z. (1977). Assessing depressive symptoms in five psychiatric populations: a validation study. *American Journal of Epidemiology*, 106, 203-214.
- Wise, T. N., Mann, L. S., Mitchell, J. D., Hryvniak, M., & Hill, B. (1990). Secondary alexithymia: an empirical validation. *Compr Psychiatry*, 31(4), 284-288.
- Wu, C. S. T., Wong, H. T., Yu, K. F., Fok, K. W., Yeung, S. M., Lam, C. H., & Liu, K. M. (2016). Parenting approaches, family functionality, and internet addiction among Hong Kong adolescents. *BMC Pediatrics*, 16, 130. doi: 10.1186/s12887-016-0666-y
- Xiuqin, H., Huimin, Z., Mengchen, L., Jinan, W., Ying, Z., & Ran, T. (2010). Mental health, personality, and parental rearing styles of adolescents with internet addiction disorder. *Cyberpsychology, Behavior and Social Networking*, 13(4), 401-406. doi: 10.1089/cyber.2009.0222

- Yao, M. Z., He, J., Ko, D. M., & Pang, K. (2014). The influence of personality, parental behaviours, and self-esteem on internet addiction: a study of Chinese college students. *Cyberpsychology, Behavior, and Social Networking*, *17*(2), 104-110. doi: 10.1089/cyber.2012.0710
- Yates, T. M., Gregor, M. A., & Haviland, M. G. (2012). Child Maltreatment, Alexithymia, and Problematic Internet Use in Young Adulthood. *Cyberpsychology, Behavior and Social Networking*, *15*(4), 219-225. doi:10.1089/cyber.2011.0427
- Yen, J. Y., Yen, C. F., Chen, C. C., Chen, S. H., & Ko, C. H. (2007). Family factors of internet addiction and substance use experience in Taiwanese adolescents. *CyberPsychology & Behavior*, *10*(3), 323-329.
- Young, K. S. (1996). Internet Addiction: The emergence of a new clinical disorder. *CyberPsychology and Behavior*, *1*(3), 237-244.
- Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology and Behavior*, *1*(3), 237-244.
- Young, K. S. (1999). *Internet addiction: Symptoms, evaluation, and treatment*. Retrieved from: <http://www.netaddiction.com/articles/symptoms.pdf>

## Η Σχέση του Διαδικτυακού Εθισμού με την Αλεξιθυμία και την Αντιλαμβανόμενη Γονεϊκότητα σε Φοιτητές Πανεπιστημίου

ΠΑΝΑΓΙΩΤΑ ΣΟΡΑΝΙΔΟΥ<sup>1</sup>, ΑΝΤΩΝΙΑ (ΝΤΟΝΑ) ΠΑΠΑΣΤΥΛΙΑΝΟΥ<sup>1</sup>

### ΠΕΡΙΛΗΨΗ

Τα ηλεκτρονικά μέσα αποτελούν αναπόσπαστο μέρος της καθημερινότητας διευκολύνοντάς τη σε πολλαπλά επίπεδα. Το Διαδίκτυο αποτελεί χρήσιμο εργαλείο εργασίας, γνώσης (Paranikolaou, Makri, Magoulas, Chinou, Georgalas & Roussos, 2016), ψυχαγωγίας και πληροφόρησης, αλλά το απύθμενο εύρος του συχνά αποδεικνύεται επισφαλές για τον χρήστη. Η παρούσα μελέτη επικεντρώνεται στη σχέση του διαδικτυακού εθισμού με την Αλεξιθυμία και την αντιλαμβανόμενη γονεϊκότητα της παιδικής ηλικίας, ελέγχοντας πιθανές διαμεσολαβήσεις της κατάθλιψης. Για τους σκοπούς της μελέτης, ένα δείγμα 206 φοιτητών ελληνικών πανεπιστημίων από τμήματα Κοινωνικών, Θετικών και Ανθρωπιστικών Σπουδών με μέση ηλικία τα 21 έτη, κλήθηκε να συμπληρώσει την κλίμακα διαδικτυακής κατάχρησης IAT της Young (1998), την κλίμακα Αλεξιθυμίας του Τορόντο των Bagby, Parker και Taylor (1994), την κλίμακα κατάθλιψης CES – D scale (Radloff, 1977), την κλίμακα μέτρησης γονεϊκού δεσμού PBI των Parker, Tupling και Brown (1979) και μια φόρμα δημογραφικών πληροφοριών. Η Αλεξιθυμία σημειώνει στατιστικώς σημαντική σχέση με τον διαδικτυακό εθισμό, με τους παράγοντες που διαμεσολαβούν τη σχέση να παραμένουν ασαφείς. Τα ευρήματα συζητούνται ως προς μια πιθανή αναθεώρηση των εργαλείων μέτρησης του φαινομένου και προς μια εναλλακτική προσέγγιση με ευρύτερες προεκτάσεις στη θεραπευτική πράξη.

Λέξεις-κλειδιά: Εθισμός στο Διαδίκτυο, Αλεξιθυμία, Αντιλαμβανόμενη γονεϊκότητα, Κατάθλιψη.

1. Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών.

Στοιχεία επικοινωνίας: Σορανίδου Παναγιώτα, Στρατιγού Νίντερ 29, Ν. Σμύρνη 17123 Αθήνα. E-mail: soranidou.panagiota@gmail.com

Αντωνία Παπαστυλιανού, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών, Τμήμα Φιλοσοφίας, Παιδαγωγικής και Ψυχολογίας, Τομέας Ψυχολογίας. Πανεπιστημιούπολη - Ιλίσσια, 157 84 Αθήνα. E-mail: adrapast@ppp.uoa.gr