Is there a relationship between problematic Internet use and responses of social anxiety, obsessive-compulsive and psychological well-being among adolescents?

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Título: ¿Existe relación entre uso problemático de Internet y las respuestas de ansiedad social, obsesivo-compulsivas y el bienestar psicológico en adolescentes?.
Resumen: El uso excesivo de Internet en adolescentes y jóvenes se considera relacionado con problemas intrapersonales e interpersonales. El objetivo de esta investigación fue estudiar la relación entre el uso problemático de Internet, bienestar psicológico y respuestas de ansiedad social y obsesivo-compulsivas. La muestra estuvo formada por 132 varones y 178 mujeres de edades comprendidas entre 16 y 23 años que cursaban Bachillerato y estudios universitarios. Los resultados indicaron que la edad influyó en la mayor parte de factores del Uso compulsivo de Internet. El sexo afectó a los niveles del uso problemático de Internet siendo los chicos los que mayores puntuaciones alcanzaron en uso compulsivo y consecuencias negativas. Se confirmó una correlación significativa y directa entre uso problemático de Internet y respuestas de ansiedad social y obsesivo-compulsivas. Los predictores más importante del uso problemático de Internet fueron el dominio del entorno, la ansiedad social y los síntomas obsesivo-compulsivos. Se podría concluir, aunque con cautela, que mientras que los jóvenes con ansiedad social podrían buscar el uso de internet como un medio de interacción placentero, los jóvenes con síntomas obsesivo-compulsivos podrían llegar a un uso excesivo como medio de eliminar la ansiedad compulsiva.
Palabras clave: Internet; ansiedad social; obsesión-compulsión; bienestar psicológico; adolescentes.

Abstract: Excessive Internet use in adolescents and young people is related to intrapersonal and interpersonal difficulties. The aim of this research was to study the relationship between problematic Internet use, psychological well-being, and responses of social anxiety and obsessive-compulsive. Participants were 132 male and 178 female high school and college students aged between 16 and 23 years. The results indicate that age influences most of the factors of compulsive Internet use. Gender affects the levels of problematic Internet use, with males scoring higher in Compulsive Internet Use and Negative Outcomes. A significant and direct correlation was found between problematic Internet use and responses of social anxiety and obsessive-compulsive. The main predictors of problematic Internet use were: Environmental mastery, Social anxiety and Obsessive-compulsive symptoms. It can be concluded, tentatively, that while young people with social anxiety could find the Internet use a means of pleasant interaction, young people with obsessive-compulsive symptoms could become excessive Internet users as a means to eliminate compulsive anxiety.
Key words: Internet; Social anxiety; obsessive-compulsive; psychological well-being; adolescents.

Introduction

The Internet has become one of the areas of greatest interest in the context of non-substance-related behavioural addictions (Sim, Gentile, Bricolo, Serpelloni & Gulamoydeen, 2012). Since there is no consensus, various terms have been used to refer to the same phenomenon, such as addiction to the Internet, problematic or pathological Internet use, maladaptive use, excessive use, compulsive use of the Internet, dependence on the Internet, among others (Murali & George, 2007; Odaci & Çikrikçi, 2014).

Between 4.4% and 19.5% of adolescents and young adults make excessive use of the Internet (Durkee et al, 2012; Kormas, Critselis, Janikian, Kafetzis & Tsitsika, 2011). The favorite activities are searching for information on the web, social networking sites, the use of e-mail and chats (Pontes, Szabob & Griffiths, 2015). In addition, 80% of adolescents over 14 years have used social networks, rising to 85% at 17 years (Bringué & Sádaba, 2009). This activity may be related to signs of problematic Internet use in adolescents (Gomes & Sendin, 2014; Müller et al., 2016).

Differences in levels of use in relation to gender were found by several authors, with males obtaining a higher prevalence (Dalbudak et al., 2015; Dhir, Chen & Nieminen, 2015; Haddadain, Abedin & Monirpoor, 2010). However, other investigations have found no such differences (Gámez- Guadix, Calvete, Orue & Las Hayas, 2014). In relation to the type of use, Booth, Goodman and Kirkup (2010) observed that girls used the Internet to communicate with friends and family, while boys used it to interact with unknown "virtual friends" and online games. Age is also an important factor that seems to influence the problematic use of the Internet (Wanajak, 2011), so adolescents have been considered as the most vulnerable population to developing this problem (Lam, 2014; Sasmaz et al., 2013).

Between the psychological and behavioural consequences that derive from Internet abuse we may observe the following: problems with behaviour, social isolation, failure at school, family problems (Gómez, Rial, Braña, Valera & Barreiro, 2014). The psychological implications are multiple, to the point that sometimes the problematic Internet use affects the psychological well-being of the individuals, low self-esteem, and demonstrating comorbidity with other psychopathologies, such as depression, social anxiety, hostility, etc. (Alavi et al., 2012; Ko et al., 2014; Rosen, Whaling, Rab, Carrier & Cheever, 2013).

Some studies concluded that social anxiety is an important predictor of problematic Internet use (Çuadar, 2012;

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Echeburúa & Requesens, 2012; Lee & Stapinski, 2012). The "hypothesis of social compensation" offers an explanation of this phenomenon, confirming that people with higher levels of social anxiety "compensate" poor social relationships by establishing relationships through the web, since the expression of emotions and the dissemination of information through this means reduces the fear of being evaluated negatively (Valkenburg & Peter, 2009).

In this line, Caplan (2007; Lee & Stapinski, 2012) stated that people with social anxiety experience a greater sense of control through online communication and a lower risk of being negatively assessed. Esfandiari (2014) showed that, in people with social anxiety, fear and apprehension to the negative evaluation experienced were the best predictor of the use of this type of communication. While from the "self-regulation model" (LaRose, Lin & Eastin, 2003), people with social anxiety use the Internet to self-regulate, that is, to regulate their fears and anxieties, as well as their social concerns (LaRose et al., 2003; Shepherd & Edelmann, 2005).

Regarding the relationship between Internet addiction and obsessive-compulsive symptoms, in a meta-analytic study (Ha et al., 2006) found an association between Internet addiction and obsessive-compulsive symptoms. Nevertheless, the authors concluded that although there was an apparent relationship between Internet addiction and obsessive-compulsive spectrum disorders, this was not fully demonstrated. Bipeta, Yerramilli, Karredla & Gopinath (2015) found that patients with OCD presented a problematic Internet use greater than the control group, noting that the goal of compulsive use of Internet was to relieve anxiety, not to find pleasure.

Koo and Kwon (2014) conducted a meta-analysis in which they found that the main risk factors that explained Internet addiction were anguish and negative mood; the difficulty of individuals in controlling or regulating themselves and, finally, temperament, obsession/absorption and avoidant/dependent features.

In addition to research focused on specific psychopathologies, other studies have investigated the connection between the use of the Internet and psychological well-being (Çardak, 2013; Casale, Lecchi & Fioravanti 2015; Lai et al., 2015; Mei, Yau, Chai, Guo & Potenza, 2016). Some authors have observed that abusive use of Internet and online interactions entails individuals' spending time on Internet at the expense of other daily activities, which leads to a consequent isolation, academic impairment, and problems in family relationships. Therefore, the psychosocial well-being of the individual is threatened (Valkenburg & Peter, 2007).

Although studies exist, none have been found that analyse the implication of social anxiety, obsessions-compulsions and excessive Internet use along with different variables of psychological well-being. Similarly, the influence of sex and age is unmatched in the various investigations. Thus, the objectives of this present study were: (1) to examine the influence of the socio-demographic variables on the type of Internet use and problematic Internet use; (2) to ana-

lyse the relationship between the problematic Internet use and different aspects of psychological well-being; (3) to analyse the relationship between problematic Internet use and scores on social anxiety and obsessive-compulsive symptoms; and (4) to examine the predictive capacity of psychological well-being, social anxiety, and obsessive-compulsive symptoms in problematic Internet use.

Method

Participants

The sample consisted of 310 adolescents and young people who studied in high school ($n = 211$) and university ($n = 99$) in public centres in the Region of Murcia (Spain), of whom 42.5% were male. The mean age was 18.25 ($SD = 2.18$) and the range was 16 to 23 years. Additionally, 11.2% of the participants exceeded the cut-off score of 97 in social anxiety, while 17.6% did so in obsession-compulsion (cut-off point 14). 0.3% of the participants achieved the lowest score in social anxiety, and 2.3% did so in obsessions-compulsions, while no one reached the highest scores in both measures. Therefore, the data were not influenced by the ceiling or floor effect.

Table 1. Demographic Characteristics.

	Frequency	%
Course		
1º Bachillerato/ High School	134	43.2
2º Bachillerato/ High School	77	24.8
University	99	40.0
Use Internet father		
Never	35	11.7
Little	86	28.8
Sometimes	117	39.1
Much	61	20.4
Use Internet mother		
Never	54	17.6
Little	130	42.5
Sometimes	95	31.1
Much	27	8.8
Use Internet brothers		
Never	6	2.1
Little	20	7.1
Sometimes	94	33.1
Much	164	57.7

Procedure

The sampling method was incidental or convenience sampling. Nevertheless, a letter was sent to five Secondary Schools to request their participation in the study. Four headmasters who expressed interest in participating were interviewed. Subsequently, a letter was sent to parents requesting informed consent for their son/daughter to participate in the research. Once the authorization was received, the evaluation was carried out.

In the case of university students, a group of student of the degree in psychology was selected randomly from those who accepted to participate in the study and had signed the consent. All participants completed a questionnaire anonymously in a session lasting no longer than 1 hour in front of their teacher and a member of the investigative team (an expert in clinical evaluation).

Participants received no incentive for participation in the study. During the running, the ethical principles of research with human beings were respected, ensuring the confidentiality of the participants.

Instruments

The participants completed the following questionnaires:

Generalized Problematic Internet Use Scale (GPIUS2, Caplan, 2010; Gámez-Guadix, Orue & Calvete, 2013). The scale is composed of 15 items with Likert-type format with values ranging from 1 (totally disagree) to 7 (totally agree). It comprises 4 subscales: a) Preference for Online Social Interactions - refers to the belief that relationships through internet are safer, more comfortable and effective, and less threatening than face-to-face interaction ($\alpha = .67$), b) Mood Regulation - the use of Internet to reduce feelings of isolation or emotional distress ($\alpha = .76$), c) Deficient self-regulation – this includes cognitive preoccupation or thoughts related to Internet ($\alpha = .79$), and Compulsive Internet Use ($\alpha = .82$) - the inability to control Internet use, and d) Negative Outcomes – the degree to which an individual experiences personal, social, academic or work problems as a result of the dysfunctional use of the Internet. ($\alpha = .72$). Cronbach's coefficient alpha for the full scale was .88. All reliability coefficients were calculated in the sample used in this study.

Time online (Bernal, 2013). The time (number of hours per day) that participants spent using instant messaging, online games, e-mail and social networking sites was evaluated.

Short version of Ryff's Psychological Well-Being Scale (Díaz et al., 2006). It is composed of 29 items that assess psychological well-being through a Likert-type response format (1-strongly disagree, 6-strongly agree). The factors and their average reliability are: Self-Acceptance ($\alpha = .81$), Positive Relations ($\alpha = .81$), Autonomy ($\alpha = .70$), Environmental Mastery ($\alpha = .52$), Personal Growth ($\alpha = .56$), and Purpose in Life ($\alpha = .71$). The internal consistency of the entire scale was .86,

Social Phobia and Anxiety Inventory (SPAI; Beidel, Turner, Stanley & Dancu, 1989). This self-report is composed of 45 Likert-type items with a range of 1 (never) to 7 (always). The factors and their average reliability were the following: Social Phobia ($\alpha = .96$) and Agoraphobia ($\alpha = .87$). The total reliability of this was .96. The Social phobia subscale includes 32 items that measure anxiety in four contexts: strangers, authority, people of the opposite sex and people in general. The Agoraphobia subscale consists of 13 items. The cut-off

score for the subscale SPAI Social Phobia was 97, and it is the most suitable index to detect young people with social anxiety.

Maudsley Obsessive Compulsive Inventory (MOCI; Hodgson & Rachman, 1977). This scale consists of 30 true-false items that assesses the number of obsessive-compulsive behaviours, with 14 the score that would indicate the problematic presence of obsessions and compulsions. It returns a total score, as well as a score in each of its 4 subscales: Cleaning (11 items), Checking (9 items), Slowness (7 items), and Doubting (7 items). Cronbach's alpha coefficient was .80.

Data analysis

The data analysis was performed with the SPSS statistical package (v. 20.0). T tests for independent samples were used to examine differences based on sex in the problematic use and types of use. Pearson correlations were made to study the relationship between age and problematic Internet use and types of use. Finally, a Stepwise regression analysis was conducted to examine the predictive capacity of psychological well-being, social phobia and obsessive-compulsive on problematic Internet use.

Results

Problematic Internet use, Internet usage type and Socio-demographic variables

Significant differences were found in terms of sex in Compulsive Internet use, $t(303) = 2.37$, $p = .02$, and in Negative Outcomes, $t(303) = 2.96$, $p = .01$. Males had higher averages (Table 2). In relation to the type of use, males devoted more time than females to playing online, $t(298) = -4.39$, $p < .001$.

Table 2. Descriptive statistics of GPIUS and time using Internet (daily hours) by gender.

	Male		Female	
	Mean	*SD*	*M*	*SD*
POSI	7.10	3.16	6.63	2.95
MR	10.15	4.55	10.17	4.25
CP	8.52	4.16	7.98	3.92
CIU	9.06	4.24	7.89	4.20
NO	6.20	3.30	5.13	2.94
GPIUS (G)	41.02	15.17	37.80	13.06
Instant messaging	4.25	1.69	4.59	1.72
Gaming	2.13	1.44	1.50	1.03
E-mail	1.75	1.37	2.00	1.32
Social Networking	3.69	1.69	3.89	1.71

Note. POSI: Preference for online social interaction; MR: Mood regulation; CP: Cognitive preoccupation; CIU: Compulsive Internet use; NO: Negative outcomes; GPIUS: Generalized problematic Internet use global; *n* men = 127, *n* women = 178.

Moreover, it was found that the use of Social Networks, $r = -.35$, $p < .01$, Online game time, $r = -.14$, $p = .014$, Compulsive Use, $r = -.18$, $p = .01$, and Negative Outcomes, $r = -.13$, $p = .02$, were inversely related to age. While the use of e-

mail, $r = .184$, $p = .01$, Preference for online interaction, $r = .12$, $p = .04$, and Mood Regulation, $r = .25$, $p < .01$, was related positively. The remaining correlations did not obtain statistical significance.

Correlations between problematic Internet use and Internet usage type

The results of the correlation analysis between problematic Internet use and the time of use of different Internet tools are presented in Table 3. The correlations between social networks and all GPIUS factors are highlighted. The highest were with compulsive Internet use, $r = .36$, $p < .01$, and Cognitive Preoccupation, $r = .31$, $p < .01$. Negative outcomes obtained a greater correlation with online play, $r = .23$, $p = .01$. Mood Regulation did not correlate significantly with any type of use, except social networks, $p = .01$. Instant messaging returned the highest correlations with Cognitive Preoccupation, $r = .28$, $p = .01$, Compulsive Internet use, $r = .26$, $p = .01$, and with global GPIUS, $r = .24$, $p = .01$.

Table 3. Pearson´s correlations Among Problematic Internet Use and Internet usage type ($n = 310$).

	M (SD)	Instant messaging	Gaming	E-mail	Social Networking
POSI	6.83(3.06)	.11*	.08	.05	.20**
MR	10.16(4.35)	.05	.05	.06	.18**
CP	8.19 (4.02)	.28**	.06	-.10	.31**
CIU	8.35 (4.23)	.26**	.17**	.02	.36**
NO	5.55 (3.12)	.18**	.23**	.05	.21**
GPIUS (G)	39.08 (14.01)	.24**	.15**	.02	.35**

Note. POSI: Preference for online social interaction; MR: Mood regulation; CP: Cognitive preoccupation; CIU: Compulsive Internet use; NO: Negative outcomes; GPIUS: Generalized problematic Internet use global. **$p < .01$, *$p < .05$.

Correlations between the problematic Internet use and psychological well-being

The results indicate that the Preference for Online Interaction and Negative Outcomes significantly correlated with all the variables that formed psychological well-being. There was a significant negative correlation between problematic Internet use and all the variables of psychological well-being, especially with Environmental Mastery, $r = -.30$, $p = .01$, Self-Acceptance, $r = -.25$, $p = .01$, and Positive Relations, $r = -.21$, $p = .01$. The highest inverse correlation was between Positive Relations and Mood Regulation, $r = -.30$, $p = .01$.

With respect to the variables of psychological well-being, it was found that problematic Internet use obtained the highest correlation with Environmental Mastery, $r = -.30$, $p = .01$, which in turn was the variable of psychological well-being that correlated most highly with Negative Outcomes, $r = -.27$, $p = .01$, Compulsive Internet use, $r = -.23$, $p = .01$, and Cognitive Preoccupation, $r = -.22$, $p = .01$. In addition, Mood Regulation and Preference for online interaction obtained the highest correlation with Positive Relations, $r = -.30$, $p = .01$; $r = -.26$, $p = .01$, respectively (Table 4).

Table 4. Pearson´s correlations Among Problematic Internet Use and Psychological Well-being ($n = 310$).

	M (SD)	POSI	MR	CP	UCI	NO	GPIUS(G)
SA	18.40 (3.49)	-.24**	-.28**	-.14*	-.10	-.18**	-.25**
PR	23.85 (4.62)	-.26**	-.30**	-.07	-.01	-.16**	-.21**
AU	25.78 (4.85)	-.23**	-.26**	-.05	-.13*	-.16**	-.22**
EM	21.65 (3.64)	-.24**	-.18**	-.22**	-.23**	-.27**	-.30**
PG	18.99 (3.13)	-.12*	-.07	-.11	-.12*	-.14**	-.15**
PL	22.51 (4.00)	-.18**	-.17**	-.08	-.09	-.16**	-.18**
PW	131.19 (15.89)	-.32**	-.33**	-.16**	-.16**	-.27**	-.33**

Note. POSI: Preference for online social interaction; MR: Mood regulation; CP: Cognitive preoccupation; CIU: Compulsive Internet use; NO: Negative outcomes; GPIUS: Generalized problematic Internet use global; SA: Self- acceptance; PR: Positive relations; AU: Autonomy; EM: Environmental mastery; PG: Personal growth; PL: Purpose in life; PW: Psychological Well-being.
**$p < .01$. *$p < .05$

Correlations between problematic Internet use with social phobia and obsessive-compulsive symptoms

The results of the global Social Anxiety correlated significantly and positively with all variables of problematic Internet use, highlighting Preference for online interaction, $r = .24$, $p = .01$, Mood Regulation, $r = 22$, $p = .01$, and global Problematic Internet use, $r = .26$, $p = .01$ (Table 5). The specific variable Social Anxiety (SPAI SP) presented the highest correlations with Preferences for Online Interaction, $r = .25$; $p = .01$, and Mood Regulation, $r = .22$, $p = .01$.

Obsessions-compulsions showed higher correlations with Negative Outcomes, $r = .34$, $p = .01$, and Compulsive Internet use, $r = .34$, $p = .01$. These scores were larger than those obtained with Social Anxiety (Global and Subscales). Finally, both Preference for online interaction and Mood Regulation did not correlate significantly with Obsession-Compulsions.

Table 5. Pearson´s correlations Among Problematic Internet Use with Social Phobia and Compulsive-obsessive (*n* = 310).

	Mean (SD)	POSI	MR	CP	CIU	NO	GPIUS(G)
SPAISP	59.97 (30.83)	.25**	.22**	.19**	.18**	.16**	.27**
SPAIAG	12.92 (11.17)	.19**	.19**	.21**	.23**	.26**	.29**
SPAIGlobal	71.45 (38.70)	.24**	.22**	.17**	.18**	.17**	.26**
OCS(MOCI)	8.71 (4.78)	.08	.02	.19**	.24**	.34**	.22**

Note. POSI: Preference for online social interaction; MR: Mood regulation; CP: Cognitive preoccupation; CIU: Compulsive Internet use; NO: Negative outcomes; GPIUS: Generalized problematic Internet use global; SPAI SP: Social phobia or social anxiety subscale; SPAIAG: Agoraphobia subscale; SPAI Global: social phobia Global; OCS: Obsessive-compulsive symptoms. **p < .01, *p < .05.

Predictive variables of Problematic Internet Use

A stepwise multiple linear regression was used to examine the predictive capacity of social phobia (SPAI social phobia), obsessive-compulsive symptoms and psychological well-being against Problematic Internet Use (Table 6). The percentage of variance explained was of medium-low magnitude, which indicated that there should be other variables that explain problematic Internet use. The most explained variable of the Pathological Internet use was Negative Outcomes (16.5%), with only two predictors: obsessives-compulsives and Environmental Mastery. Problematic Internet use was explained by Environmental Mastery, Obsessions-compulsions and Social Anxiety (15.4%).

Table 6. Stepwise regression results for GPIUS.

GPIUS variables	Predictors	ß	*t*	Adjusted R Square
POSI	1	-.172	-3.03**	.125
	2	.133	2.24*	
	3	-.132	-2.31*	
	4	-.120	-2.04*	
MR	1	-.216	-3.82***	.143
	4	-.181	-3.23**	
	5	-.140	-2.36*	
CP	3	-.183	-3.28**	.082
	6	.144	2.58*	
	2	.126	2.22*	
CIU	6	.219	4.03***	.094
	3	-.207	-3.80***	
NO	6	.314	6.01***	.165
	3	-.241	-4.61***	
GPIUS	3	-.247	-4.607***	.154
	2	.188	3.47**	
	6	.164	3.06**	

Note. POSI: Preference for online social interaction; MR: Mood regulation; CP: Cognitive preoccupation; CIU: Compulsive Internet use; NO: Negative outcomes; GPIUS: Generalized problematic Internet use. 1. Positive relations, 2. Social anxiety, 3. Environmental mastery, 4. Autonomy, 5. Self-acceptance, 6. Obsessive-compulsive symptoms. ***p < .001, **p < .01, *p < .05.

Social anxiety variable was a predictor of Preference for online interaction, Cognitive Preoccupations and Problematic Internet use. The variable Obsessions-compulsions was predictive of Cognitive Preoccupations, Compulsive Internet use, Negative Outcomes and Problematic Internet use. Environmental Mastery was a predictor variable that appears in all factors of the GPIUS, except in Mood regulation. Also, it was the greatest predictor of Problematic Internet use, β = -.247, and of Cognitive Preoccupations, β = -.183. Positive Relations was the greatest predictor of Preference for Online Interaction, β = -.172, and Mood Regulation, β = -.216. Obsessions-compulsions were the greatest predictor of Compulsive Internet use, β = .219, and Negative Outcomes, β = .314.

Discussion and conclusion

The general objective was to analyse the interaction between the problematic Internet use, social phobia, obsessive-compulsive symptoms and psychological well-being.

The first objective was to examine the influence of sociodemographic variables on the different types of Internet use and problematic Internet use. It was found that males scored higher averages in Compulsive Internet use and Negative Outcomes. Specifically, males predicted the greatest compulsive Internet use and relapses after the intervention. These results are in line with those of previous studies (Dhir et al., 2015; Haddadain et al., 2010).

Regarding the type of use, women seem to use fewer online games, which may be due to the fact that males usually make more playful use of the network, while girls, although there are no significant differences, use the network for social contacts (Booth et al., 2010).

With regard to age, it seems that as the age increases, young people use fewer online games. Thus, it was found that 18-year-olds were the ones that spent the most hours. The most critical age for compulsive use is 17 years, so the risk is lower as they become young adults. Nevertheless, the use of the Internet for the control and regulation of mood is greater after 21 years. These results may be related to the emotional changes experienced by adolescents and young people. They stop online games to get more into the world of social relationships, but if they feel sad, they use social networks to control their mood. Therefore, it seems that when young people experience a crisis or changes in their life, it is easy to use the Internet as a means of helping to alleviate the problems which they encounter. Support for this idea is the conclusion by Koo and Kwon (2014), which indicates that people suffering from anxiety and negative emo-

tions associated with intrapersonal difficulties are more likely to abuse Internet.

The type of Internet use that most correlated with all the factors of Problematic Internet Use was that of social networks, except with Negative Outcomes. This result would be in the same line as those can be one of the activities that greatest addiction generates in young people (Müller et al., 2016). This may be because social interaction becomes a very important aspect in the life of adolescents, so peers and group activities are the greatest reinforcers at this stage.

Another important finding was that Mood Regulation did not correlate significantly with any type of Internet use, except with the use of social networks. According to Caplan (2010), Mood Regulation is understood as the use of the Internet to reduce feelings of isolation or emotional distress. So, on the basis of this definition it is quite logical that people who use the Internet to reduce their social isolation utilise more social networks where they interact with others, thus creating and reinforcing social relations. Regarding the type of use, it was also found that the e-mail did not correlate significantly with any of the problematic Internet use variables. This may be due to several factors: the immediacy, speed, interaction by e-mail is not the same as that obtained with social networks, but it is a tool used more for work than for social contacts.

The second objective was to analyse the relationship between the problematic Internet use and different aspects of psychological well-being. A significant and inverse correlation between both variables was observed, as expected. Therefore, the greater the use of the Internet, the lesser the psychological well-being, and vice versa. It has been observed that when the use of the Internet becomes excessive and problematic, there are more tensions, deterioration of psychosocial well-being and alteration of mood regulation, which has an impact on their psychological well-being (Lai et al., 2015; Mei et al., 2016).

As for the dimensions of psychological well-being proposed by Ryff (Díaz et al., 2006), it was found that Problematic Internet use correlated significantly and inversely with Environmental Mastery and Self-acceptance. Therefore, the higher the Internet addiction, the more these dimensions of psychological well-being are affected. Coinciding with Casale et al. (2015), when you have a control of the environment and the ability to handle it, you trust more in yourself and therefore, it is easier not to need an excessive use of the Internet as a mechanism of escape. The same happens to self-acceptance, since if there is valuation, well-being and self-esteem will be less likely to be exceeded in the use of Internet, which supports the self-regulation and social compensation models described above (Echeburúa & Requesens, 2012; LaRose et al., 2003).

With respect to social anxiety and the dimensions of problematic Internet use, the results showed that all of them correlated significantly with this variable. Two of the dimensions - Preference for online interaction and Mood Regulation - were highly correlated, confirming the hypotheses of

compensation and the model of self-regulation, (LaRose et al., 2003; Shepherd & Edelmann, 2005), since adolescents and young people with social anxiety use Internet as a tool for interaction to avoid fears of negative evaluation that they may have in the face-to-face relationship, such as controlling the physical symptoms of Anxiety - blockages, redness, stuttering, etc. - and cognitive - eliminating the belief that the interlocutor has information about his anxiety state, being able to control the cognitions - focusing on interaction rather than on his own state, so reducing the level of discomfort. Thus, the greater the social anxiety, the greater the likelihood of excessive use of the Internet as the preferred means of relating, since the emotions that emerge in the interaction are positive.

Regarding obsessive-compulsive symptoms, it was observed that these correlated with Cognitive Preoccupation, Compulsive Internet use and Negative Outcomes, highlighting this latter correlation. That is, participants with obsessive-compulsive symptoms, despite observing the negative consequences of excessive Internet use, cannot regulate its use, so it becomes a compulsive use. This would lead us to consider that excessive Internet use is because participants see the Internet as a way to relieve anxiety rather than as an activity that gives pleasure (Billieux et al., 2010).

The final objective was to examine the predictive power of psychological well-being, social anxiety and obsessive-compulsive symptoms on Problematic Internet use. According to our results, the variables that predict Problematic Internet use were Environmental Mastery, Obsession-compulsion and Social Anxiety. We can say, albeit cautiously, that people who use the Internet to try to control their lives, show more problems in face-to-face relationships (social phobic) and have obsessive-compulsive symptoms, may have a greater predisposition to develop problematic Internet use.

Negative Outcomes was the variable most explained from obsessions-compulsions and Environmental Mastery. One possible explanation for this can be found in the fact that people with difficulty managing daily activities, who feel unable to change or improve the context around them and have a tendency to obsessions, can turn to the Internet to get the perception of greater control of the environment, and to soothe their repetitive thoughts, in such a way that it enhances the compulsive use of Internet. The obsessions-compulsions variable was a predictor of Cognitive Preoccupations, Compulsive Internet use and Problematic Internet use. This result points in the above-mentioned direction, that people with obsessions-compulsions, instead of looking for pleasure try to reduce their level of anxiety.

As regards clinical implications, it is possible to point out, although with caution, that while young people with social anxiety may seek in the use of the Internet a means of pleasant interaction, they can also make excessive use of it; young people with obsessive-compulsive symptoms would use the Internet as a means of eliminating anxiety despite being aware of the negative consequences of overuse in their daily lives. Considering that adolescence is a stage of great

changes and decisions that entails discomfort and uncertainty, it would be important to prevent excessive use of the Internet by promoting the mental health of adolescents, early intervention in problems such as social anxiety, obsessions-compulsions or general welfare, which are variables of risk for the abusive user of the Internet and for other types of abuse.

As limitations of the study we would highlight our use of a sample for convenience, which influences the generalization of the results. Also, it is a cross-sectional and correlational study, which prevents us from talking about causal relations, which would better explain the direction of the variables used. Another limitation is the fact that our sample is a community, as well as being small for this type of analysis.

However, these limitations also offer future work perspectives to better understand the problematic Internet use.

In future studies, it might be interesting to use a randomly selected community sample within a larger population, not only in the Region of Murcia. Likewise, the use of clinical population, both social anxiety groups and obsessive-compulsive disorder groups, could inform whether our results are maintained or changed, comparing these groups with non-clinical groups. Monitoring these participants over time could inform us if there are changes due to the overcoming of intrapersonal crises or if the same scores are maintained regardless of the age and personal context of the participant. Another future perspective could be related to checking whether participants with obsessive-compulsive disorder really use the Internet as a compulsion or as a means of pleasant interaction.

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