

Indicators of Social Networking Addiction in College Students from Lima

Indicadores de adicción a las redes sociales en universitarios de Lima

Indicadores de vício a redes sociais nos estudantes universitários de Lima

Elizabeth Dany Araujo Robles

Facultad de Psicología, Universidad Peruana Cayetano Heredia, Lima, Perú

Received: 05/09/16

Reviewed: 04/10/16

Accepted: 29/10/16

ABSTRACT. The study was conducted on 200 students from a private university in Lima (150 female), who belong to four academic programs: Psychology, Administration and International Business, Pharmacy and Biochemistry, and Obstetrics. The objective of the study is to assess the intensity of three social network addiction dimensions: obsession for social networking, lack of personal control about using social networks, and excessive use of social networks. The Social Networking Addiction Questionnaire from Ecurra and Salas (2014) was used. Results show low levels for all the assessed indicators. Males' scores were significantly higher than females' only in the obsession for social networking indicators. In addition, for all three dimensions, the Administration program students obtained the highest scores, and the Psychology and Obstetrics program students obtained the lowest. The implications of the results found are discussed.

Keywords:

addictions,
social
networking
addiction,
college
students,
gender

RESUMEN. Se realizó un estudio en 200 estudiantes de una universidad privada de Lima (150 mujeres), pertenecientes a cuatro carreras: psicología, administración y negocios internacionales, farmacia y bioquímica y obstetricia, con el objetivo de evaluar la intensidad de tres dimensiones de adicción a las redes sociales: obsesión por las redes sociales; falta de control personal en el uso de las redes sociales y uso excesivo de las redes sociales. Se utilizó el Cuestionario de Adicción a las Redes Sociales de Ecurra y Salas (2014). Los resultados indican bajos niveles en todos los indicadores evaluados. Los varones puntuaron significativamente más alto que las mujeres sólo en los indicadores de obsesión por las redes sociales. Asimismo, los estudiantes de la carrera de administración tuvieron las puntuaciones más altas y los de psicología y obstetricia las más bajas en las tres dimensiones. Se discuten las implicancias de los resultados hallados.

Palabras

clave:

adicciones,
adicción a las
redes sociales,
estudiantes
universitarios,
género.

Cite as: Araujo Robles, E. D. (2016). Indicadores de adicción a las redes sociales en universitarios de Lima [Indicators of Social Networking Addiction in College Students from Lima]. *Revista Digital de Investigación en Docencia Universitaria*, 10(2), 46-56. doi: <http://dx.doi.org/10.19083/ridu.10.494>

* **E-mail:** elizadany@hotmail.com

RESUMO. É realizado um estudo em 200 estudantes de uma universidade privada de Lima (150 mulheres), pertencentes a quatro carreiras: psicologia, administração e negócios internacionais, farmácia e bioquímica e obstetrícia, com o objetivo de avaliar a intensidade das três dimensões do vício em redes sociais: obsessão pelas redes sociais; falta de controle pessoal no uso das redes sociais e uso excessivo das redes sociais. Usamos o Questionário de Vício de Redes Sociais de Ecurra e Salas (2014). Os resultados indicam níveis baixos em todos os indicadores avaliados. Os homens marcaram significativamente mais alto do que as mulheres apenas nos indicadores de obsessão pelas redes sociais. Além disso, os alunos na carreira de administração tiveram escores mais altos e os de psicologia e obstetrícia as mais baixas nas três dimensões. São discutidas as implicações dos resultados encontrados.

Palavras chave:
vício,
vício em
redes sociais,
estudantes
universitários,
sexo

The terms online social networks, virtual social networks or simply social networks are currently related—according to Kuss and Griffiths (2011)—to those virtual spaces where users can create a profile, interact with real friends and meet people with whom to share certain interests. The most known—and used—of said spaces is Facebook, which, by 2015, had already 1300 million users (Arnaboldi, Passarella, Conti & Dunbar, 2015).

Andreassen (2015) observes that connecting to social networks can be considered as a normal behavior of modern life. Social networks meet human needs: they satisfy the social nature of human beings, and that can explain their rapid popularization (Pérez 2013). The need for companionship in a world where modern urban life tends to separate individuals is largely met by social networks (Griffiths, Kuss & Demetrovics, 2014), and they can also meet two other very important needs: safety and accomplishment (Kadushin, 2012). There are clear advantages of communication through internet in general and through social networks in particular. For instance, the possibility of having “more time to create and edit messages, as well as a better control regarding the way to introduce yourself to others” (Caplan & High, 2011, p. 36).

Internet, and particularly social networks, are important for the youngest ones. In principle, young people connect to social networks seeking communication, support and entertainment (Ross, Orr, Sisic, Arsenault, Simmering & Orr, 2006). Echeburúa and Requesens

(2012) point out that “social media cover teenagers’ basic psychological needs: to make themselves visible, to reaffirm their identity before their peers, to have fun or to be in touch with friends” (p. 23). Social networks are normally used to stay in touch with people with whom a relationship outside the internet has already been formed (Kuss & Griffiths, 2011; Pempek, Yermolayeva & Calvert, 2009). All of these observations explain the high popularity of social networks among teenagers and young adults. Colás, González and de Pablos (2013), for instance, report that 90% of Andalusian teenagers present a “regular use” (every day or some days of the week) of social networks, which is a percentage close to those obtained in other studies cited by said authors. Social networks facilitate several modes of socialization, going from the exchange of written messages to the exchange of photographs and videos. All these features that make social networks appealing are particularly valued by younger users “who seek acknowledgement and popularity” (Echeburúa & Requesens, 2012, p. 24). Moreover, social networks such as “Facebook provide young adults a means to express themselves and interact with each other” (Thompson & Loughheed, 2012, p. 97). To this must be added the great and almost natural affinity between youth and new technologies. All of this means a greater risk of developing a social network addiction in the case of teenagers and young adults.

Can we talk about social network addiction? As West and Brown (2013) point out, the main indicators that an activity has become an addiction for an individual

are the loss of control over said activity and that it is repeated despite its adverse consequences. These two criteria are accepted by Andreassen (2015) to talk about social network addiction and to differentiate it from an occasional use of them. Furthermore, several authors (e. g., Chóliz & Marco, 2012; Echeburúa & Corral, 2010; Kuss & Griffiths, 2011) consider it appropriate to talk about social network addiction in cases in which the behavioral problem shares important traits with substance addictions. They indicate, for example, that some of the people who excessively use social networks show signs such as the neglect of other important activities, concerns about the use of networks, tolerance and mood changes during withdrawal periods (even craving for the addictive activity), and all of them are considered signs of addiction.

The excessive use of social networks—and then the addiction to them—arises as it happens with other addictions: from individual, socio-cultural and reinforcement factors (Andreassen, 2015). First, the individual perceives social networks as an important means to reduce stress, loneliness or depression, or to compensate low self-esteem and the lack of social success (Caplan & High, 2011; Griffiths, Kuss & Demetrovics, 2014). Young (2007) has indicated that certain situational factors leading to an acute episode of stress (divorce, death of a loved one, etc.) may also contribute to the chance that an individual—if vulnerable—develops this addiction. However, there are cases in which the excessive use of social networks may hide another type of addiction, such as compulsive gaming, which can be performed through some specialized social networks (Griffiths, Parke & Derevensky, 2011). For this reason, it is important to make a clear distinction between social network addiction and addiction to some activity that can be carried out in a social network, such as participating in a game, which would rather count as online game addiction.

Personality factors are important as risk factors. For instance, more extrovert individuals and those with higher scores in neuroticism are more prone to addiction to Facebook (Andreassen, Torsheim, Brunborg & Pallesen, 2012). In the case of extrovert individuals, that propensity is maybe due to their need to socialize and, in

the case of individuals with high scores in neuroticism, it is possible that the predominant factor is that they seek emotional support. More pronounced indicators of low self-esteem, depression and lack of social skills were found in individuals addicted to Facebook in comparison with non-addict users (Herrera, Pacheco, Palomar & Zavala, 2010). Of course, the importance of each of these variables can depend on cultural factors and on factors of particular characteristics of the samples studied. For example, Jelenchick, Eickhoff & Moreno (2013) did not find any relationship between the amount of time spent on Facebook and the level of depression in college students, although the authors also admitted that “one single study cannot confirm or refute a relationship” (p. 129).

The mechanism of social network addiction seems to be simple and clear: connecting to social networks reduces stress, which entails psychological dependence and therefore the need of getting connected again, as it happens with the individual needing alcohol in order to “feel good”. To this personal factors, those of socio-cultural nature must be added (for instance, according to Andreassen, 2015, observation of role models, current pressure to show to be competent using contemporary technology, search for status). Furthermore, the ease of access to social networks makes them a strong immediate reinforcer, which increases the likelihood of generating an addiction (García, 2013). Hence, the reinforcement factor acts at its greatest intensity, as connecting to networks involves having contact with immediately rewarding events such as “entertainment, popularity, attention, positive feedback” (Andreassen, 2015, p. 179). This way, and in summary:

... an individual with a vulnerable personality, with a weak family cohesion and with poor social relationships is at great risk of becoming an addict if he has the habit of immediate rewards, has the object of the addiction at hand, feels peer pressure and is under stress circumstances... or circumstances of existential emptiness (Echeburúa & Corral, 2010, p. 93).

Griffiths, Kuss and Demetrovics (2014) summarize the results of several studies about the factors having an influence on the excessive use of social networks.

For instance, frequency depends on the ease of use perceived, fewer concerns about privacy and being younger; while the amount of time is predicted by factors such as the use of the social network as a way of escape and the level of previous experience with the internet. In other studies, it can be observed that frequency and the amount of time spent on social networks are correlated with the feeling of loneliness. Possibilities such as those of having online conversations and making a lot of friends predict addiction to social networks.

Andreassen (2015) points out that social network addiction entails four types of adverse consequences: emotional problems, problems with relationships, performance problems and health problems. Many of the studies cited by Griffiths et al. (2014) also report some of the consequences of the excessive use of networks: dysfunction in the activities performed during the day as a result of sleep deprivation, decline in academic performance and deterioration of relationships with family or with the individual's romantic partner. Kuss and Griffiths (2011) add other negative effects such as procrastination, distraction and poor time management. Interference with other important activities of the individual's life already indicates a risk of addiction.

In this article, we are particularly interested in exploring the dynamics of indicators of social network addiction in a subgroup taken from the general population, that is to say, not in a group already specifically referred to or identified as clinical or of addicts. The question posed was—given a non-clinical population—how indicators of social network addiction may vary according to certain socio-demographic characteristics. It is likely that in this type of population, that is without specifically considering a group of individuals already identified as addicts, each of those indicators has its own dynamics, to a greater or lesser degree, depending on certain socio-demographic factors such as gender. Therefore, we are interested in determining how addiction indicators—such as excessive use, dependence, lack of control or neglect of personal responsibilities—become apparent by gender.

Various studies have partially approached that issue, mainly focusing on comparisons between genders

in terms of frequency of connections and the time spent connected. For instance, the results of a study conducted by Durkee et al. (2012) on teenagers of 11 European countries indicate that women use social networks more than men. A study conducted on American teenagers also reports that women spend more time than expected on Facebook, and that they lose more hours of sleep because of Facebook, it causes them stress and makes them feel addicted to Facebook (Thompson & Loughheed, 2012). Many other studies also report a more frequent and prolonged use of Facebook on the part of women (Barker, 2009; Yesil, 2014). In contrast to it, a study conducted on Andalusian teenagers did not find differences between genders in terms of frequency of use of social networks (Colás et al., 2013). With respect to other addiction indicators (such as neglect of important academic and household activities, spending the night connected, thinking of being connected “a few more minutes”, trying without success to reduce the connection time and “feeling depressed, angry or in a bad mood” if not connected to networks, being all of these indicators that disappear as soon as the individual is connected), a study carried out by Marín, Sampedro and Muñoz (2015) on Spanish college students did not find differences between genders. On the contrary, considering also a broader range of indicators of social network addiction, Cam and Isbulan (2012) found higher levels in men. Nevertheless, information about how these different types of indicators become apparent in Peruvian youth is needed, and that is the objective of this study.

METHOD

Participants

200 students of a private college in Lima (75% of whom were women) participated, and the range of age was 18 and 22 years. That college is one with the highest number of students in the country and generally has students of middle and low socioeconomic level. This university was chosen intentionally as it is considered representative of a majoritarian socioeconomic level of the country's college population. Students belonged to the programs of Psychology (31%), Administration and International Businesses (19%), Pharmacy and Biochemistry (29%) and Obstetrics (21%), and were enrolled in the first terms of study. Only data from

students with regular attendance and who had not repeated courses before were collected. Students selected belonged to a class chosen at random and voluntarily accepted to answer the questionnaire.

Instrument

Escurra and Salas' (2014) Social Network Addiction Questionnaire was used. In order to create this instrument, the authors took as a basis the DSM-IV-TR (American Psychiatric Association, 2008) substance dependence criteria. After submitting a first version of the questionnaire to a review by judges, the resulting version was applied to 48 college students from Lima in order to refine the language contained in the items. This reviewed version was then subject to an exploratory factor analysis, to a reliability assessment and to a confirmatory factor analysis. Escurra and Salas obtained three factors: (1) Obsession with social networks (concern and constant attention to what happens in social networks, and also includes anxiety when connection is not possible); (2) Lack of self-control regarding the use of social networks (inability to regulate the amount of time spent connected and neglect of other important activities because of staying

connected), and (3) Excessive use of social networks (excessive amount of time spent connected and difficulty to reduce that time). Reliability of scales using Cronbach alpha vary from .88 to .92. The final version of the questionnaire has 24 items, scored in a Likert scale, and answers go from never to always (from 0 to 4 points, respectively). A higher score in each scale reveals a higher level in addiction indicators.

Procedure

Students of each program answered the questionnaire in groups in their corresponding classroom. Before applying the instrument, participants were told about the objectives of the research and that their participation would be voluntary and anonymous, and only students who accepted to participate remained in the classroom. Students were asked to read the questionnaire's instructions carefully and they were told that there was no time limit to complete it. Data were analyzed using SPSS version 22. Besides, measures of central tendency and of deviation, Kolmogorov-Smirnov normality test for the three variables (dimensions) and finally the comparison of said variables by gender (Mann-Whitney U) and program (Kruskal-Wallis) were considered.

Table 1

Average scores and standard deviations in social network addiction

		Obsession with social networks			Lack of self-control			Excessive use of social networks		
		M	M/n of items	SD	M	M/n of items	SD	M	M/n of items	SD
Gender	Male	9.42	.94	4.98	7.60	1.27	4.10	11.18	1.40	6.49
	Female	7.73	.77	5.27	6.54	1.09	4.32	10.37	1.30	5.78
Program	Psychology	7.00	.70	5.32	6.40	1.07	4.19	9.50	1.19	5.93
	Administration	9.34	.93	4.46	7.32	1.22	4.09	13.50	1.69	5.55
	Pharmacy	8.76	.88	5.46	7.43	1.24	4.92	10.29	1.29	6.08
	Obstetrics	7.93	.79	5.24	6.07	1.01	3.52	9.90	1.24	5.53
Total		8.15	0.82	5.24	6.81	1.14	4.28	10.58	1.32	5.96

RESULTS

Table 1 shows average scores, means for each item and standard deviations by gender and program corresponding to factors of social network addiction. It has been deemed appropriate to calculate the average score per item (total score of the scale divided by the number of items of the scale) in order to have a sort of "profile" indicating the intensity of each factor in the sample being analyzed. Data indicate that the most intense factor, in the total group as well as in the subgroup by gender and by program, is the excessive use of social networks, and that the factor with the lowest intensity is that of the obsession with them. In other words, indicators with the greatest impact within the group studied have to do with being connected during a period of time considered to be excessive and with having difficulties to reduce that time, whereas the factor with the lowest impact is related to the cognitive and affective responses that occur when individuals are not connected, such as the anxiety that can be felt during those moments, which is comparable with the withdrawal syndrome.

However, it is important to point out that scores obtained in this group are relatively low. Having into consideration that items are scored from 0 to 4 and that a greater score indicates greater intensity in each indicator, the intermediate score of 2 (which corresponds to the answer "sometimes") can be considered as a reference

point allowing to have an idea of the degree at which these indicators are present within the group studied. In all scales and subgroups, average scores per item were lower than 2. Likewise, the half of the total score of each scale can be considered as reference point, which on average also corresponds to answering "sometimes" for all items. From this perspective, it can be observed that in the scale of obsession with social networks, whose highest score is 40.99% of participants have a score of 20 or less; in the scale of lack of self-control, whose highest score is 24.89% of participants have a score of 12 or less; and in the scale of excessive use, whose highest score is 32.84% of participants have a score of 16 or less. In general, it can be stated that a problematic use of social networks could not be described either in the group as a whole or in any of the subgroups in particular. Only three items received a score of 4 ("always") more than 10 times. They were two items of the scale lack of self-control ("I connect to social networks as soon as I wake up" and "I think I should control my activity of connecting to social networks") and one item of the scale of excessive use ("I stay connected to social networks for too long"). Even when these results seem reassuring, they must be taken into account as a starting point for preventive actions, since, as mentioned before, the increase in difficulty to control the time of use of social networks can have adverse consequences at a family, social and academic level.

Table 2

Kolmogorov-Smirnov test of normality of scores in social network addiction

		Obsession with social networks		Lack of self-control		Excessive use of social networks	
		K-S	p.	K-S	p	K-S	p
Gender	Male	.094	.200	.152	.006	.108	.200
	Female	.129	.000	.113	.000	.092	.003
Program	Psychology	.129	.012	.105	.089	.084	.200
	Administration	.098	.200	.144	.047	.104	.200
	Pharmacy	.124	.026	.171	.000	.153	.002
	Obstetrics	.144	.030	.175	.002	.098	.200

Table 3*Mann-Whitney U test for comparison of social network addiction by gender*

Scales	Gender	Average range	Sum of ranges	U	p	d
Obsession with social networks	Male	115.54	5777.0	2998.0	.034	0.33
	Female	95.49	14323.0			
Lack of self-control	Male	112.52	5626.0	3149.0	.089	0.25
	Female	96.49	14474.0			
Excessive use of social networks	Male	105.75	5287.50	3487.5	.458	0.14
	Female	98.75	14812.50			
Total	Male	111.54	5577.0	3198.0	.119	-
	Female	96.82	14523.0			

According to data of Table 2, scores of the scales of obsession with social networks and of lack of self-control are distributed in a not normal way in most subgroups. In contrast, in the case of the scale of excessive use of social networks, distribution tends to be normal. This result corroborates that the lowest scores are predominant in the two first scales. Table 3 shows comparisons by gender. Even though men show higher scores in the three scales, the difference is significant only in the case of obsession with social networks and has a small effect size ($0.20 < d < 0.50$). This indicates more anxiety and concern in men than in women with respect to social networks, but both genders show a similar level in terms of the likelihood of neglecting other important activities because of social networks or of being devoted to them. This is where the importance of assessing different sets of addiction indicators separately is highlighted, as well as the importance of assessing the dynamics of each of those sets of indicators in different sub-groups of the population.

Finally, in Table 4, significant differences can be observed with respect to the excessive use of social networks among students of the four programs considered. Students of the Administration and International Businesses program have the highest scores, followed

by students of the Pharmacy and Biochemistry program, with whom differences in the lack of self-control are small. Students of the Psychology and of the Obstetrics programs have considerably lower scores, despite the fact that differences among programs are not significant in the scales of obsession with social networks and of lack of self-control. When analyzing the size of the differences among the four programs regarding the excessive use of social networks, high magnitudes ($d > 0.50$) were found among students of the Administration and International Businesses program and in the case of the other programs: Psychology ($d = 0.69$), Obstetrics ($d = 0.65$) and Pharmacy and Biochemistry ($d = 0.55$). It can be observed that students of the two programs in the group studied linked to the provision of health services have the lowest scores. This immediately suggests that variables determining career choices or some characteristics of the program of studies have an impact on the indicators of social network addiction.

DISCUSSION

Based on the comparative results obtained by gender, it was observed that in the group of men there is a highest level of what could be considered part of the withdrawal syndrome; however, as pointed out before, the average score is relatively low; therefore, it is not

Table 4

Kruskal-Wallis test for comparison of social network addiction by program

Scales	Program	Average range	Chi- square	p
Obsession with social networks	Psychology	86.60	7.285	.063
	Administration	116.63		
	Pharmacy	106.62		
	Obstetrics	97.98		
Lack of self-control	Psychology	95.03	2.820	.420
	Administration	109.42		
	Pharmacy	106.22		
	Obstetrics	92.61		
Excessive use of social networks	Psychology	89.69	12.805	.005
	Administration	130.13		
	Pharmacy	96.70		
	Obstetrics	94.90		
Total	Psychology	89.06	8.412	.038
	Administration	122.20		
	Pharmacy	103.17		
	Obstetrics	94.07		

possible to talk—in a general way—about a widespread risk. Nevertheless, the fact that in this study men have higher scores than women in indicators of this type replicates some observations made in other countries (Cam & Isbulan, 2012).

On the other hand, the lack of gender differences regarding excessive use contrasts with what has been reported in some of the international studies previously cited that indicate that women spend more time than men connected to social networks (Barker, 2009; Thompson & Loughheed, 2012; Yesil, 2014). However, when comparing these various results, the focus should be put on the fact that it is not possible to establish an equivalence between the frequency of use and what could be considered “excessive use”, that is to say, there may or may not be gender differences in terms of frequency of use without said frequency being considered excessive in every single case. It is also important to take into account that, in many reports, data do not establish a clear differentiation between

excessive use of internet in general and excessive use of social networks in particular. In this respect, it is important to point out that some studies conducted in other cultural contexts indicate that there are no gender differences regarding the excessive use of internet on the part of teenagers (Casas, Ruiz-Olivares & Ortega-Ruiz, 2013; Puerta-Cortés & Carbonell, 2013). The study of Marín et al. (2015) mentioned before, which was conducted on Spanish college students, indicates that there are no gender differences in indicators related to the lack of self-control and excessive use. Likewise, it must be taken into consideration whether we talk about the population in general or about a group in particular. For instance, in a study conducted by Rial, Gómez, Braña and Varela (2014), it was observed that there was a higher number of women within a group that could be considered a risk group (“excessive use”). In general, until now, and considering globally various indicators of social network addiction, studies that explore gender differences are not conclusive, and as Andreassen (2015) points out, this is largely due to

methodological differences among those studies. To those differences we should also probably add cultural factors that modulate not only the frequency of certain behaviors, but also the impact that certain variables have on them.

The idea of exploring possible gender differences in the various addiction indicators is largely related to the differences between men and women regarding their willingness to have risk behaviors. There is plenty of evidence suggesting that men have a greater tendency to have those behaviors than women do (Byrnes, Miller & Schafer, 1999; Courtenay, 2000). Women are more cautious than men, at least in some cases (Harris, Jenkins & Glasser, 2006). Men also show higher levels of sensation seeking (Cross, Copping & Campbell, 2011). Given these precedents, men would be expected not so much to use social networks more, but to make a riskier and more problematic use of them, which would become apparent, for example, in an exposure to interpersonal conflicts or in a deterioration in health or in the individual's academic or work performance as a consequence of the excessive devotion to social networks. Nevertheless, results shown in this study suggest that gender differences in the tendency to risk or sensation seeking—if any in the sample used—do not seem to have an important impact on how teenagers and youth use social networks, except for concerns regarding social networks when they are not connected. It seems that—at least within the group studied—other types of social and affective factors have a more relevant role in the tendency to use social networks and possibly in the genesis of a problematic use. For example, it is known that both men and women use the internet and social networks trying to reach goals such as socialization, status and acknowledgement (Park, Kee & Valenzuela, 2009), and it is possible that that type of motivations have a greater intensity among men than among women, having an influence on some of the indicators of a possible social network addiction. Nonetheless, it is clear that the various components of that addiction may be expressed in different ways, depending on the socio-demographic characteristics of the population.

Other evidence in support of said conclusion was found in the differences among programs.

Actually, the career choice may respond to a diverse series of psychological factors. Ackerman and Beier (2003) postulated the existence of a “trait complex” including intellectual, conative and personality factors, and that is significantly correlated to an individual's vocational choice. Furthermore, there is plenty of evidence about how some motivations and isolated personality traits influence on the career choice. For instance, it is known that students of programs related to administration are characterized by being more extrovert (Sverko & Babarovic, 2016). An issue of interest is to determine to what extent those associations explain the relationship between the program of studies and the intensity of the indicators of social network addiction. For now, such relationships can only be explained in an indirect way, given the shortage of evidence about this issue. It could be said that, for instance, extroversion is positively related to Facebook addiction (Andreassen et al., 2012). Therefore, since individuals choosing programs related to administration are more extrovert, they could show more pronounced indicators of social network addiction. Moreover, Psychology students, contrary to, for example, Medicine students, are characterized by attitudes of openness and flexibility, and by having a perception that is more intuitive than objective (Bitrán, Zúñiga, Lafuente, Viviani & Mena, 2004). Besides, an important motivation to overcome personal problems is frequently observed among Psychology students (for instance, Gámez, Marrero, Díaz & Urrutia, 2015). The key idea is that at least some of the psychological factors related to the vocational choice may also have an impact on the tendency to abuse of social networks, so that the relationship observed between certain programs and indicators of social network addiction could be explained. In sum, future research should clarify the relationship between the program of studies and social network addiction.

REFERENCES

- Ackerman, P. L. & Beier, M. E. (2003). Intelligence, personality, and interests in the career choice process. *Journal of Career Assessment*, 11(2), 205-218. doi: <http://dx.doi.org/10.1177/1069072703011002006>
- American Psychiatric Association (2008). *Manual diagnóstico y estadístico de los trastornos mentales*. Barcelona: Masson.

- Andreassen, C. S. (2015). Online social network site addiction: A comprehensive review. *Current Addiction Reports*, 2(2), 175-184. doi: <http://dx.doi.org/10.1007/s40429-015-0056-9>
- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale. *Psychological Reports*, 110(2), 501-517. doi: <http://dx.doi.org/10.2466/02.09.18.PR0.110.2.501-517>
- Arnaboldi, V., Passarella, A., Conti, M., & Dunbar, R. I. M. (2015). *Online social networks: Human cognitive constraints in Facebook and Twitter personal graphs*. Amsterdam: Elsevier.
- Barker, V. (2009). Older adolescents' motivations for social network site use: the influence of gender, group identity, and collective self-esteem. *CyberPsychology and Behavior*, 12(2), 209-213. doi: <http://dx.doi.org/10.1089/cpb.2008.0228>
- Bitrán, M., Zúñiga, D., Lafuente, M., Viviani, P. & Mena, B. (2004). Características psicológicas y estilos cognitivos de estudiantes de medicina y de otras carreras de la Pontificia Universidad Católica de Chile [Psychological features and cognitive styles of students entering Medicine and other careers at the Pontificia Universidad Católica de Chile]. *Revista Médica de Chile*, 132 (7), 809-815. doi: <http://dx.doi.org/10.4067/S0034-98872004000700004>
- Byrnes, J. P., Miller, D. C., & Schafer, W. D. (1999). Gender differences in risk taking: a meta-analysis. *Psychological Bulletin*, 125(3), 367-383. doi: <http://dx.doi.org/10.1037/0033-2909.125.3.367>
- Cam, E., & Isbulan, O. (2012). A new addiction for teacher candidates: social networks. *The Turkish Online Journal of Educational Technology*, 11(3), 14-19.
- Caplan, S. E., & High, A. C. (2011). Online social interaction, psychosocial well-being, and problematic internet use. En K. S. Young, & C. Nabuco de Abreu (Eds.), *Internet addiction. A handbook and guide to evaluation and treatment* (pp. 35-53). Hoboken, NJ: Wiley.
- Casas, J. A., Ruiz-Olivares, R., & Ortega-Ruiz, R. (2013). Validation of the Internet and Social Networking Experiences Questionnaire in Spanish adolescents. *International Journal of Clinical and Health Psychology*, 13(1), 40-48. doi: [http://dx.doi.org/10.1016/S1697-2600\(13\)70006-1](http://dx.doi.org/10.1016/S1697-2600(13)70006-1)
- Chóliz, M. & Marco, C. (2012). *Adicción a Internet y redes sociales. Tratamiento psicológico*. Madrid: Alianza Editorial.
- Colás, P., González, T. & de Pablos, J. (2013). Juventud y redes sociales: Motivaciones y usos preferentes [Young People and Social Networks: Motivations and Preferred Uses]. *Comunicar*, 20(40), 15-23. doi: <http://dx.doi.org/10.3916/C40-2013-02-01>
- Courtenay, W. H. (2000). Behavioral factors associated with disease, injury or death among men: Evidence and implications for prevention. *The Journal of Men's Studies*, 9(1), 81-142. doi: <http://dx.doi.org/10.3149/jms.0901.81>
- Cross, C. P., Copping, L. T., & Campbell, A. (2011). Sex differences in impulsivity: A meta-analysis. *Psychological Bulletin*, 137(1), 97-130. doi: <http://dx.doi.org/10.1037/a0021591>
- Durkee, T., Kaess, M., Carli, V., Parzer, P., Wasserman, C., ... Wasserman, D. (2012). Prevalence of pathological internet use among adolescents in Europe: demographic and social factors. *Addiction*, 107(12), 2210-2222. doi: <http://dx.doi.org/10.1111/j.1360-0443.2012.03946>
- Echeburúa, E. & Corral, P. (2010). Adicción a las nuevas tecnologías y a las redes sociales en jóvenes: un nuevo reto [Addiction to new technologies and to online social networking in young people: A new challenge]. *Adicciones*, 22(2), 91-96. Recuperado de <http://www.adicciones.es/index.php/adicciones/article/view/196/186>
- Echeburúa, E. & Requesens, A. (2012). *Adicción a las redes sociales y nuevas tecnologías en niños y adolescentes. Guía para educadores*. Madrid: Pirámide.
- Escurra, M. & Salas, E. (2014). Construcción y validación del cuestionario de adicción a las redes sociales [Construction and Validation of the Questionnaire of Social Networking Addiction (SNA)]. *Liberabit*, 20(1), 73-91.
- Gámez, E., Marrero, H., Díaz, J. M. & Urrutia, M. (2015). ¿Qué esperan encontrar los alumnos en los estudios de Psicología? Metas y motivos personales de los estudiantes en su primer año en la universidad [What do students expect to find when they enter Psychology studies? Goals and personal motives during the first year at university]. *Anales de Psicología*, 31(2), 589-599. doi: <http://dx.doi.org/10.6018/analesps.31.2.171851>
- García, J. A. (2013). Adicciones tecnológicas: el auge de las redes sociales [Technological Addictions: The Rise of Social Networks]. *Salud y Drogas*, 13(1), 5-14.
- Griffiths, M. D., Kuss, D. J. & Demetrovics, Z. (2014). Social networking addiction: An overview and preliminary findings. En K. P. Rosenberg & L. C. Feder (Eds.), *Behavioral addictions. Criteria, evidence, and treatment* (pp. 119-141). San Diego, CA: Elsevier-Academic Press.
- Griffiths, M. D., Parke, J., & Derevensky, J. L. (2011). Remote gambling in adolescence. En J. Derevensky, D. T. Shek, & J. Merrick (Eds.), *Youth gambling. The hidden addiction* (pp. 125-143). Boston: De Gruyter.
- Harris, C. R., Jenkins, M., & Glaser, D. (2006). Gender differences in risk assessment: why do women take fewer risks than men? *Judgment and Decision Making*, 1, 48-63.
- Herrera, M. F., Pacheco, M. P., Palomar, P. & Zavala, D. (2010). La adicción a Facebook relacionada con la baja autoestima, la depresión y la falta de habilidades sociales [Facebook Addiction Related to Low Self-Esteem, Depression and Lack of Social Skills]. *Psicología Iberoamericana*, 18(1), 6-18.
- Jelenchick, L. A., Eickhoff, J. C. & Moreno, M. A. (2013). "Facebook depression?" Social networking site use and depression in older adolescents. *Journal of Adolescent Health*, 52(1), 128-130. doi: <http://dx.doi.org/10.1016/j.jadohealth.2012.05.008>
- Kadushin, C. (2012). *Understanding social networks*. Nueva York: Oxford

- University Press.
- Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction-A review of the psychological literature. *International Journal of Environment Research and Public Health*, 8(9), 3528-3552. doi: <http://dx.doi.org/10.3390/ijerph8093528>
- Marín, D., Sampedro, B. E. & Muñoz, J. M. (2015). ¿Son adictos a las redes sociales los estudiantes universitarios? [Are they addicted to college students social networks?] *Revista Complutense de Educación*, 26, 233-251. doi: http://dx.doi.org/10.5209/rev_RCED.2015.v26.46659
- Park, N., Kee, K. F., & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *CyberPsychology and Behavior*, 12, 729-733. doi: 10.1089/cpb.2009.0003
- Pempek, T. A., Yermolayeva, Y. A. & Calvert, S. L. (2009). College students' social networking experiences on Facebook. *Journal of Applied Developmental Psychology*, 30(3), 227-238. doi: <http://dx.doi.org/10.1016/j.appdev.2008.12.010>
- Pérez, D. (2013). Redes sociales como lugar en la educación. En A. Constante (Coord.), *Las redes sociales. Una manera de pensar el mundo* (pp. 51-68). México: UNAM-Ediciones Sin Nombre.
- Puerta-Cortés, D. X. & Carbonell, X. (2013). Uso problemático de internet en una muestra de estudiantes universitarios colombianos [Problematic Internet use in a sample of Colombian university students]. *Avances en Psicología Latinoamericana*, 31, 620-631.
- Rial, A., Gómez, O., Braña, T. & Varela, J. (2014). Actitudes, percepciones y uso de Internet y las redes sociales entre los adolescentes de la comunidad gallega (España) [Attitudes, perceptions and Internet and social networks use among Galician (Spain) teens]. *Anales de Psicología*, 30(2), 642-655. doi: <http://dx.doi.org/10.6018/analesps.30.2.159111>
- Ross, C., Orr, E. S., Sisic, M., Arseneault, J. M., Simmering, M. G., & Orr, R. (2006). Personality and motivations associated with Facebook use. *Computers in Human Behavior*, 25(2), 578-586. doi: <http://dx.doi.org/10.1016/j.chb.2008.12.024>
- Sverko, I., & Babarovic, T. (2016). Integrating personality and career adaptability into vocational interest space. *Journal of Vocational Behavior*, 94, 89-103. doi: <http://dx.doi.org/10.1016/j.jvb.2016.02.017>
- Thompson, S. H., & Loughheed, E. (2012). Frazzled by Facebook? An exploratory study of gender differences in social network communication among undergraduate men and women. *College Student Journal*, 46(1), 88-98.
- Yesil, M. M. (2014). The relationship between Facebook use and personality traits of university students. *International Journal of Academic Research, Part B*, 6, 75-80. doi: <http://dx.doi.org/10.7813/2075-4124.2014/6-2/B.12>
- Young, K. (2007). Cognitive-behavioral therapy with Internet addicts: Treatment outcomes and implications. *CyberPsychology and Behavior*, 10(5), 671-679. doi: <http://dx.doi.org/10.1089/cpb.2007.9971>
- West, R., & Brown, J. (2013). *Theory of addiction* (2da. Ed.). Chichester, Inglaterra: John Wiley & Sons.