

Association addictive behavior to social networks high school students: A study in Mexico

Comportamiento adictivo a redes sociales en estudiantes de bachillerato: un estudio en México

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SUMMARY

Introduction: Addictive behavior to Social Networking Sites (SNS) has increased significantly in recent decades, whose psychological consequences have been the appearance of symptoms similar to any addictive process and also affects considerably in adolescence.

Objective: Analyze the presence of habits of use in virtual social networks to identify diagnostic criteria that suggest the development of addictive behavior in adolescents.

Methods: The participants of this study were 271

high school students, the instrument Scale of risk of addiction-adolescent was applied to social networks and the Internet: reliability and validity (ERA -RSI), $\alpha = 0.90$. A design non-experimental, cross-sectional, and correlational, Spearman's statistical test was used.

Results: It was found that there is a relationship in the use of chat with the number of hours that connect to social networks ($P = 0.001$); Likewise, it was found that there is a relationship between the duration in hours of connection to virtual social networks and being furious if the cell phone was taken away ($P = 0.001$).

Conclusions: Suggested that there are intervention proposals to attend to students who present the problem of addictive behavior. New research is proposed on addictive behavior in responsible use and more in this time of the pandemic.

Keywords: Addictive behavior, social networks, adolescents, Mexico

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RESUMEN

Introducción: El comportamiento adictivo a los Sitios de Redes Sociales (SRS) ha incrementado significativamente en las últimas décadas, cuyas consecuencias psicológicas han sido la aparición de síntomas similares a cualquier proceso adictivo y también afecta de manera considerable en la etapa de la adolescencia.

Objetivo: Analizar la presencia de hábitos de uso en redes sociales virtuales para identificar criterios diagnósticos que sugieran el desarrollo de conducta adictiva en los adolescentes.

Método: Los participantes de este estudio fueron 271

estudiantes de bachillerato, se aplicó el instrumento Escala de riesgo de adicción-adolescente a las redes sociales e internet: fiabilidad y validez (ERA –RSI), $\alpha = 0,90$. Un diseño no experimental, transversal y alcance correlacional, se utilizó la prueba estadística de Spearman.

Resultados: *Se encontró que hay una relación en el uso del chat con el número de horas que se conectan a las redes sociales ($P=0,001$); así también, se encontró que hay relación entre el tiempo de duración en horas de conexión a redes sociales virtuales y ponerse furioso si le quitaran el celular ($P=0,001$).*

Conclusiones: *Se sugiere que existan propuestas de intervención para atender a los estudiantes que presentan la problemática de conducta adictiva. Se proponen nuevas investigaciones el comportamiento adictivo en el uso responsable y en la situación actual de pandemia.*

Palabras clave: *Comportamiento adictivo, redes sociales, adolescentes, México.*

INTRODUCTION

Addictive behavior to Social Networking Sites (hereafter SNS) is virtual communities where users can create individual public profiles, interact with real-life friends, and meet other people based on shared interests. They are seen as a global consumer phenomenon with an exponential rise in usage within the last few years (1). Evidence suggests that SNS have increased significantly, whose psychological consequences have been the appearance of symptoms similar to any addictive process and also affects considerably in adolescence (2). For adolescents, SNS allows communication to link and consolidate their identity, they are belonging to the group, their developing self-esteem, and thus increase the possibilities of relating effectively and with quality in their relationships with others (3).

There are relevant studies on the behavior of cell phone use in adolescents, considers adolescence as a vulnerable age and exposed to risks due to the abuse of social networks, since it found that there is a relationship between the use of cell phones and weakness in interpersonal relationships (4), psychological indicators and behaviors that manifest manifested in irritability when depriving themselves of the mobile device (5), also represents a condition of probable risk, the same condition of the adolescent is

susceptible to the possibility of having risky behaviors and the use of SNS can affect the adolescent by interfering in their life daily, school, in their physical development, in their mental health condition (6) a series of damages caused by a possible addictive behavior to the SNS due to the intensity and frequency with which they use mobile phones (7), and have been validated in the context of the Internet addiction components model (8)

There is a growing scientific evidence base to suggest excessive SNS use may lead to symptoms traditionally associated with related addictions (9). These symptoms have been described as salience, mood modification, tolerance, withdrawal, relapse, and conflict with regard to behavioral addictions (10). Additionally, there is research on the negative impact of social media and has identified several potential risks interrelated with mental health (11), it has been found that derived from the SNS, there are a depressed mood, irritability, psychomotor restlessness, impaired concentration, and sleep disorders (12,13).

Therefore, the objective of this study was to analyze the presence of habits and behaviors in the use of virtual social networks to identify diagnostic criteria that suggest the development of addictive behavior, which allows evaluating and preventing this problem in a group of adolescents of high school.

METHODS

Participants

The population of the research was already part of the users of social networks by the intentional selection, considering the students who present excessive use in social networks, the sample was made up of 271 participants, from the CBTIS 75, High School, in the city of Dolores Hidalgo, in the State of Guanajuato, Mexico.

Instruments

An evaluation instrument was used to collect the data, which was applied to the adolescents of the sample population. Which consists of 29 items and is called the Social Network and

Internet Addiction Risk Scale: Reliability and Validity (ERA-RSI), in its objective it evaluates the risk of Internet addiction integrating four dimensions: symptoms-addiction, social-use, geek traits, and nomophobia. The instrument is prepared in the form of a survey with a frequency response type. The levels of reliability and validity vary depending on each of the sub-tests and range between a Cronbach's alpha $\alpha = 0.76$ and $\alpha = 0.88$.

Process

- Permits to implement the study intervention were negotiated with the school.
- The results were reviewed for the statistical analysis of the data (quantitative approach) to identify significant relationships between the study variables and thus indicate the conclusions evaluating the viability of the hypotheses raised, to finally sensitize the sample population and teaching staff concerning recommendations for use in social networks.

These results were made known to the authorities of the institution as well as thanks to all the participants for their contribution to the development of the study.

In this research, a non-experimental, cross-sectional, descriptive-correlational design was used (14).

Data analysis

Frequencies, proportions, and correlation analysis of Spearman to know the association between the variables. The software used for the statistical analysis was SPSS, version 25.

Ethical aspects

Two main aspects were considered: the confidentiality of the data and the informed consent format by the institution.

RESULTS

Table 1 shows that the most representative group of the study corresponds to the female being 56.1 %, 43.9 % corresponding to the male; it is observed that the age is homogeneous, ranging from 14 to 19 years, whose mean is 15.95 years.

Table 1
Sociodemographic data of the participants

Sex	n	%
Men	119	43.9
Women	152	56.1
15.9 mean age		
Age	n	%
14	1	0.37
15	47	17.34
16	193	71.22
17	25	9.23
18	4	1.48
19	1	0.37

It is observed in the results of Table 2 that there is a significant positive correlation between connecting to RSV for 1 hour; 2 hours; between 3 and 4 hours; and more than 4 hours a day, and use the chat, in the rankings never, ever, enough times and always, so based on these results, it is stated that the habit of connecting to NSN for 1 hour or more daily, increases addictive behavior to virtual social networks.

Table 3 presents a significant positive correlation between the duration in hours of connection to the NSNs and being furious if the cell phone was taken away, in the classifications never, sometimes, many times and always; Therefore, based on these results, it is affirmed that the symptom of becoming furious if the cell phone was taken away and the duration in hours dedicated to the connection to NSN, sufficiently explain the addictive behavior to the use of RSV and the symptoms of Nomophobia.

Table 2
Correlation time duration in hours of connection to NSN and use of chat

	Never use chat		Sometimes use chat		Many times use chat		Always use chat	
	Spearman	P	Spearman	P	Spearman	P	Spearman	P
a. Connect about 1 hour NSN daily.	0.891**	0.001	0.777**	0.001	0.728**	0.001	0.771**	0.001
b. Connect about 2 hours NSN daily.	0.726**	0.001	0.855**	0.001	0.911**	0.001	0.751**	0.001
c. Connect to NSN for 3-4 hours daily.	0.765**	0.001	1.000**	0.001	0.779**	0.001	0.879**	0.001
d. Connect more than 4 hours to NSN daily.	0.802**	0.001	0.859**	0.001	0.814**	0.001	0.750**	0.001

* $P \leq 0.01$ ** $P \leq 0.001$

Table 3

Correlation time of duration in hours of connection to NSS and to be furious if they take away the cell phone

	Never to be furious		Ever to be furious		Many times to be furious		Always to be furious	
	Spearman	P	Spearman	P	Spearman	P	Spearman	P
a. Connect about 1 hour NSN daily.	0.741**	0.001	0.552**	0.001	0.642**	0.001	0.682**	0.001
b. Connect about 2 hours NSN daily.	0.762**	0.001	0.954**	0.001	0.614**	0.001	0.679**	0.001
c. Connect to NSN for 3-4 hours daily.	0.651**	0.001	0.815**	0.001	0.567**	0.001	0.727**	0.001
d. Connect more than 4 hours to NSN daily.	0.729**	0.001	0.538**	0.001	0.757**	0.001	0.796**	0.001

* $P \leq 0.05$ ** $P \leq 0.001$

DISCUSSION

With the results obtained, it was possible to identify and analyze the uses of adolescents in NSN and relate them to signs of addictive behavior. Evidence of addictive behavior was

found in NSN use habits and behaviors, such as using NSNs at all times and in all places; experiencing anger at having to deprive oneself of NSNs; abide by the consequence that NSN interfered with your work and/or study; losing hours of sleep due to geek habits and use of NSN; use chat; review in the last hours the

activity of publications of your contacts; making new friends; playing virtual and/or role-playing games, experiencing symptoms of nomophobia such as feeling secure because you are always connected through NSN, feeling anxiety if you do not receive a response to the messages sent, becoming furious if your cell phone is deprived; apprehension about whether or not the recipient has read the message.

All of the above evidence the presence of habits and behaviors that lead to diagnostic criteria such as those that can be seen in the symptoms of nomophobia, they have revealed that dependence on social networks can have consequences such as problems in the sleep habits of adolescents, often to the detriment of their performance in school and during exams (15), a predominant aspect of network addiction is compulsive checking, defined as the “impulse to verify messages and keep up to date”, and which is related to the phenomenon known as “fear of missing something” or FOMO (Fear of Missing Out). According to a survey carried out in 2016, FOMO has serious consequences on sleep habits (16). This negative impact on sleep affects mental well-being: loss of sleep from social media addiction can lead to worse mental health, and this can lead to loss of sleep and heavy use of social media.

In this study it was found that men also have a higher prevalence than mobile phone use, although there are no significant differences, it can predict that men consume more substances, this coincides with the contribution derived from gaming and substance disorders symptoms mixed. It found a 12-month prevalence of IGD of 5.2 % in the total sample; prevalence was different for males (10.2 %) and females (1.2 %) (17). Additionally, it was found an association of Mental Disorders, suicide ideation, impairment, and treatment, with ICD-11 GD (IGD) among Those with DSM-5 IGD with higher risk drug abuse/dependence 12-month (18). However, there is no diagnostic classification in the nosological nomenclature that contains the clinical foundations to consider the establishment of an addiction to the use of the cell phone related to the internet and the SNS, being so far only a proposed disorder but not proven (13). The most similar, in 2013, Internet gaming disorder (IGD) was included in the fifth edition of the Diagnostic and Statistical

Manual of Mental Disorders (DSM-5) as a condition for further study (American Psychiatric Association). The World Health Organization will include a category of gaming disorder (GD) in the forthcoming International Classification of Disease (ICD-11) manual (18).

This study is similar in terms of the descriptive data and where it was confirmed that the problematic use of mobile phone with the adolescent population (19), what stands out from our study is that no research had been carried out in the population of that place and what confirms the generalization of the evidence in different contexts.

Mental health problems are increasingly common concerns in society, in part due to inappropriate use of the Internet and social media (in terms of frequency and content consumed). Therefore, many strategies can be adopted to improve this situation, one of them is the intensive participation of institutions and research groups in social networks through the dissemination of quality content that promotes social well-being. Although this use is positive or negative, more studies are needed to know the beneficial and harmful effects of social networks on mental health. Suggested to continue researching with a preventive and intervention purpose with programs and techniques that promote an adequate use of TIC in the adolescent population, avoiding overexposure to new technologies and their dysfunctionality and more in times of COVID-19. Along the same lines, there is an abundant need to control the amount of time of use and to strengthen the capacity for self-control in adolescents so that they make controlled use of such technologies.

It is concluded that the present study is aligned with the various efforts of other studies, which, pointing in the same direction, highlight the importance and the need to consider the use of NSN in adolescents a risk factor for addictive behavior; the significance lies in moving towards a more defined and specific identification of risk, and formulating prevention strategies in the adolescent population. Future studies will have in their task a vast work of the integration of the theoretical advances and of evidence that have been achieved regarding the identification of signs of addictive behavior, and with this,

they will be in the best possibility to increase and develop formulations of diagnostic criteria and psychological care.

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