



Received: 24/11/2021  
Accepted: 02/05/2022  
Published: 02/01/2023

## **PATHOLOGIES AND ADDICTIONS THAT SOCIAL NETWORKS CAUSE IN DIGITAL NATIVE YOUTH**

### **Patologías y dependencias que provocan las redes sociales en los jóvenes nativos digitales**

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***Financiación.** Investigación realizada en el Departamento de Ciencias Sociales de la Universidad Europea Miguel de Cervantes dentro del Grupo de Investigación en Comunicación y Marketing Digital.*

#### **How to reference this article:**

López-Iglesias, M., Tapia-Frade, A., & Ruiz-Velasco, C.-M. (2023). Pathologies and addictions that social networks cause in digital native youth. *Revista de Comunicación y Salud*, 13, 1-21.  
<http://doi.org/10.35669/rcys.2023.13.e301>

#### **Abstract**

The youth have grown up immersed in digital technology, which is why they are called digital natives. They should know how to identify the symptoms of new diseases caused by digital platforms better than any other age group. Methodology: Primary data were obtained with a 9-question self-administered questionnaire from a sample of 192 centennials. Results: Respondents mostly are unaware of having suffered pathologies due to this digital world, considering false that it may impact on their mental health. But some cases refer issues related to the abuse of social networks. Many of these young centennials are unaware of the problems caused by digital tools in mental health, since they are not aware of the new pathologies that exist in this virtual world. For the reason that they don't know new conditions that exist in this digital world. In conclusion, data collected show that the vast majority of post-millennials have experienced anxiety, depression and insomnia at some point. Social media directly impacts health. The study reflects that young people are uninformed of the terminology of pathologies such as cyber dizziness, imaginary call syndrome, nomophobia or cyberchondria. Fortunately, a majority of these members of Generation

Z are conscious that the abuse of social networks can create addiction and can constitute a threat to their privacy.

**Keywords:** Social Media, Youth, Mental Health, Addiction, Anxiety, Depression, Digital Literacy, Adolescent Psychology.

## Resumen

Los jóvenes han crecido inmersos en la tecnología digital, por ello se les denomina nativos digitales. Deberían saber identificar la sintomatología de las nuevas enfermedades causadas por las plataformas digitales mejor que cualquier otra franja de edad. Metodológicamente, se han obtenido datos mediante cuestionario autoadministrado de 9 preguntas a una muestra de 192 *centennials*. Los resultados muestran que la mayoría no es consciente de haber sufrido patologías derivadas de ellas considerando falso que impacten en su salud mental. Sin embargo, algunos casos refieren síntomas relacionados con el abuso de las redes sociales. El mundo virtual puede provocar nuevas patologías cuya existencia es ignorada por la juventud. La principal conclusión es que, los altos porcentajes recogidos muestran que la gran mayoría de los *posmilénicos* han experimentado en alguna ocasión ansiedad, depresión e insomnio. Las redes sociales impactan directamente en la salud. El estudio refleja que los jóvenes desconocen la terminología de las patologías como son el cibermareo, el síndrome de la llamada imaginaria, la nomofobia o la cibercondria. Afortunadamente una mayoría de estos integrantes de la Generación Z son conscientes de que el abuso de las redes sociales puede crear adicción y pueden constituir una amenaza a su privacidad.

**Palabras clave:** Redes sociales, *Centennials*, Salud Mental, Adicción, Ansiedad, Depresión, Alfabetización Digital, Psicología del Adolescente.

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## 1. INTRODUCTION

Social networks are used on a daily basis by young digital natives, also known as centennials, who were born around the year 2000 and therefore belong to the so-called Z Generation. These users are more likely to suffer pathologies and types of harassment such as grooming or cyberbullying. However, they are not aware of the addictions they cause (Odriozola, 2012, pp. 437-444). In the published literature, there are countless threats that society, in general, forgets about (Veloz-Aguilar, 2017; Vega, 2017). An inappropriate use of these social media can lead to demotivation and legal damages, which threaten the integrity of minors (Argente et al., 2017, p. 123).

The purpose of this paper is to explain and detail the possible mental illnesses that are acquired by the youth population when using social networks. To do so, it analyses how centennials perceive them. It reviews mental pathologies that are caused in users.

Freeman (2004, pp. 8-9) defines a social network as a community installed on the web where users can share opinions, tastes, ideologies, feelings, etc.; in addition, other functions such as economic, political, among others, are included. According to Zamora and Cobo Romaní (2019), society lacks the tools to address the changes brought about by social networks.

### **1.1. Statistical analysis of mobile usage among centennials**

The National Institute of Statistics states that Internet use is a majority practice among minors between 16 and 24 years of age, with 99.9% of men and 99.6% of women. The mobile phone integrates intelligent applications that allow access to the Internet at any time and place. The number of children with access to a mobile phone increases with age, from 85.7% at 13 years old to 96.3% at 15 years old. Young people between 16 and 24 years old are 93.2% of the population that participates more in social networks with 93.2% in the last 3 months (INE, 2020).

According to Simon Kemp's report (2021) We are social, 92% of Spaniards use the Internet on a daily basis. In Spain, Internet users have increased by 4 million, reaching 93% of the population. There are 28 million social network users in Spain. The social networks preferred by Spaniards are: YouTube 89%, WhatsApp 87%, Facebook 82%, Instagram 54% and Twitter 49% (González, 2019).

For centennials, the mobile phone has burst onto the scene dramatically. It is a natural part of their lives and the activities they organise and carry out in their daily lives. Not to mention the social link (Oksman and Rautiainen, 2017 pp. 305).

Another study by the Queen Sofia Centre on Adolescence and Youth of the FAD Youth Foundation, formerly Fundación de Ayuda contra la Drogadicción, found that in Spain, almost 90% of Spanish adolescents have a smartphone. Some 89.9% of the teenagers surveyed have a mobile phone and 76% have a laptop computer. More than half (69%) own a tablet (Kuric Kardelis et al., 2020). In terms of their main use of the Internet, listening to music stands out with 75.6%, followed by keeping in touch with people they do not usually see (45.8%). Social networking apps are present in 84.1% of mobiles in Spain and it could be said that 45 minutes a day are spent on these mobile applications by minors. The Mobile Millennials report (Chicón and Juan, 2017) points out that young people between 25 and 34 years of age use them more assiduously in the early hours of the morning.

According to the latest Mobile in Spain and the World 2019 report (Ditrendia, 2020), the number of connected devices will grow by 23% per year until 2021, reaching a total of 16 billion worldwide. The mobile phone is the most widely used device in Spain to access the internet, already used by 94.6% of Spaniards, with the sale and use of tablets falling worldwide. Thompson and Strickland (2004 pp. 369) define information and communication technologies as those devices, tools, equipment and electronic components capable of manipulating information that support the development and economic growth of any organisation. ICTs bring about wide-ranging changes in society, especially in terms of communication (Castells, 2006). According to the authors Grande, Cañón, and Cantón (2016 pp. 228-229) their specific characteristics consist of: interactivity, interconnection, immateriality, instantaneousness, digitalisation, quality of information and greater influence on processes. The Communications Market 2020, (Ofcom, 2020), research focused on the UK, shows that 37% of users talk to people they do not know, 45% do not set their privacy settings so that they are not "excessively public" and 34% provide more personal information than necessary.

Social networks, although they only exist in a virtual world, are a place where people share all their information and interact with other users. We should not forget Morduchowicz and his "three Cs":

communication through dialogue, community through the integration of like-minded groups and cooperation through the promotion of shared actions (Morduchowicz, 2018, pp. 14).

### **1.2. Age of access to social networks and the impact on youth mental health**

Most Latin American studies indicate that almost half of mental illnesses appear at the age of 14 (Fiestas and Piazza, 2014, p. 40; Arango-Dávila et al., 2008, p. 540), and there are also similar studies in Spain (Hernán, et al., 2004, p. 48). According to a study of the Sant Joan de Déu hospital in Barcelona (Costa et al., 2016, p. 1121), many centennials have not known the world without access to the Internet and social networks. Daily Internet use has increased in recent years. In 2007, only 22% of people in the UK had at least one social media profile; by 2016, this had risen to 89% (Ofcom, 2020). A new study (Bowen and Lowell, 2019), conducted among British minors, focuses on a very particular problem: the well-being and mental health of users of these apps, especially Instagram, which is considered the worst network for adolescent mental health.

Some of the repercussions on mental health caused by a bad use of mobile phones that were collected from the study of the San Joan de Diu hospital in Barcelona are: altered, strong and compulsive behaviour, isolation, nomophobia, anxiety, language impoverishment, depression and poor school performance (Costa et al., 2016).

Social networks create a strong addiction. A study conducted among more than a thousand students conducted by the University of Maryland on social media (Moeller et al., 2012 pp. 45-52) shows that minors experience a clear example of withdrawal from drug addiction when they are separated from social networks or the internet. Face-to-face bullying is the most widespread: 11% of children reported having experienced some bullying of this type, while 5% reported having experienced bullying via the Internet and 2% via mobile phone with pictures or messages. The incidence of this type of bullying rises from 1% among children aged 9 and 10 to 7% among children aged 15 and 16 (Cerezo, 2009). Bullying is another of the problems that has aroused most concern in recent years in relation to minors and, particularly, in terms of school coexistence. Grooming is defined in the Legal guide on cyberbullying and grooming of INTECO's Information Security Observatory as "situations of harassment with explicit or implicit sexual content" (Alcocer, 2017, p. 26). Fortunately, the educational community has addressed this problem by creating programmes to prevent the emotional damage it causes (Martínez et al., 2018, p. 33).

The most common and characteristic mental illnesses that social networks can cause are addiction, anxiety, depression, fear, insomnia and even anorexia and bulimia (Carbonell et al., 2012).

### **1.3. Addiction, Anxiety, Depression, FOMO and Insomnia**

Addiction to social networks is a problem that mainly affects centennials as a new form of addiction (Odriozola, 2012, p. 437). There is also the case of mobile phone addiction, where there is no such toxic substance, (Rojas-Jara et al., 2018, p. 42). Xavier Sánchez Carbonell (2008, pp. 156) states that the dis-adaptive use of mobile phones does not represent an addiction in itself.

The authors Carmen Padilla and Juliana Ortega (2017:51) claim that a possible explanation could be related to the presence of some depressive indicators. To demonstrate this, they analysed social network addiction and depressive symptomatology in university students, observing that a severe

level of depressive symptomatology is associated with a very high level of dependence on networks, although low self-esteem is characterised by social isolation. For their part, Rodríguez Puentes and Fernández Parra relate the time spent using social networks to mental health (2014, p. 133). Other authors compare depression caused by social networks with that caused by video game addiction (Andreassen et al., 2018).

FOMO is an acronym for fear-of-missing-out (Torres Serrano 2020, p. 32) meaning "fear of missing something on social networks or being excluded from an event", which forces sufferers to remain permanently connected to the Internet. Exhibitionism, or the desire for the limelight, (Corrons, 2020) is nothing new, the difference is that new technologies provide us with the means to do so immediately, and with images that illustrate what we want to say. A recent statistic indicates that 56% of university students are sensitive to the influence of social networks, and that half of them have increased the frequency with which they visit these websites in the last year (Lagla et al., 2017, pp. 59).

F. Sarrais and De Castro (2007, p. 122) define insomnia as a sleep disorder consisting of the inability to initiate or maintain sleep, or to achieve adequate sleep duration and quality to restore energy and normal wakefulness. Insomnia as a symptom is also high, with an estimated 50% of adults suffering from insomnia at some point in their lives and 25-35% having experienced occasional insomnia. The study on Sleep disturbances in psychiatric disorders (Medina Ortiz et al., 2007) indicates that, in most cases, it is an underlying symptom rather than an illness in itself. Insomnia accompanies almost all psychiatric illnesses. Forty percent of patients with insomnia have a psychiatric disorder, with depression and anxiety accounting for 30% of cases.

#### **1.4. Anorexia and bulimia**

Social networks disseminate content that is highly detrimental to health related to weight loss (Lladó et al., 2017). Society is not aware of the mental illnesses that affect individuals. One of the mental illnesses they entail are, anorexia and bulimia (Rivera Salas, 2019 p. 95). There are hundreds of websites that promote them not as diseases, but as a lifestyle and therein lies the real problem. From the age of 15 and above all in females (Duque, 2019). "In the last four years we have seen an increase of 15% in children under 12 years of age", says the coordinator of the Mar Faya team, referring to eating disorders, coordinator of the Eating Disorders Unit at the Niño Jesús Hospital in Madrid (Villascusa, 2019).

At the end of 2012, the social network Instagram appeared. In just 4 years more than 4.5 million photos posted on Instagram with the label anorexia (Serra, 2015), alerting that social networks are a major danger in society because they make this kind of content more visible without any filter.

Instagram has become a competitive race, an overcoming, whoever uploads more photos with the "ideal body", gets the approval of the public (Martínez and González, 2018) and it is a claim especially in young people. As every race has its goal, and the goal is to reach these -idyllic bodies-, that is where we find the real problem, what is the perfect body (Carvajal and Terreros, 2019).

#### **1.5. Cybersickness and imaginary call syndrome**

This word comes from the 1990s, with the creation of the first virtual reality devices. Cyber comes from the word technology, the world of the Internet and sickness. It refers to the dizziness that

users of virtual reality devices may feel, and which are similar to those that a person may feel when travelling in a means of transport, only remaining immobile (Castillo, 2017, p. 169). This ailment occurs when coming into contact with the components of digital devices, dual screens, animations, LED screens or augmented reality (Quiroz et al. 2016). Several research studies have concluded that cyber motion sickness (Gimeno Martín, 2018, p. 5) is a subtype of motion sickness. Generally, the symptoms they cause are nausea, headache, anxiety, and eyestrain. The problem is that most sufferers do not believe that digital devices are the cause, but associate it with other causes in their daily lives and continue to abuse these technologies (Pinargote-Baque and Cevallos-Cedeño, 2020). The devices recreate and recreate increased concentration and movement in the eyes, causing poor synchronisation (Distéfano et al. 2019, p. 2709). Another factor is prolonged hours of high exposure to our devices, causing the sensation of dizziness (Pinargote and Cevallos, 2020).

Also called phantom vibration syndrome (Sas and Estrada, 2019, p. 115). It is a behaviour that is a product of the mobility offered by communicative devices that can be carried everywhere. In fact, several researches (Cheever et al., 2018), talked about the problems caused by social networks and the abusive use by people and the risks they entail. It also explained that 70 % of consumers of technological devices have ever perceived this sound simulation (Capilla and Cubo, 2017).

### **1.6. Nomophobia, cyberchondria and the Google effect**

The term nomophobia comes from no-mobile-phone phobia or mobile phone dependence (García, 2017, p. 7). This dependence is caused by addiction or psychological problems. According to a Sanitas report that refers to INE data on device activity statistics, with an average of 34 times a day, of which 58% are men and 48% are women. Of these 48% of women, 9% are stressed by keeping their devices switched off (Sanitas, 2019). Symptoms include constant mobile phone checking, lack of sleep, phobia of not having coverage or wifi, not turning off the mobile phone at any time or dependence on places with a plug to recharge the battery (Quiroz et al., 2016).

The medical neologism cyberchondria refers to an obsessive preoccupation with health, which leads to an obsession to consult the internet continuously and repeatedly (Martín-Vilchis et al., 2021, p. 9).

This phenomenon consists of forgetting information of normal use, due to the exaggerated and repetitive search on Internet search engines. An experiment at Columbia University (Bohannon, 2011, p. 277) claims to show that confidence in being able to find a piece of information relaxes the effort to remember it (Zapata et al. 2021, p. 57). This excessive searching on the Internet can lead to memory loss if it is not exercised in the long term.

## **2. OBJECTIVES AND HYPOTHESES**

The aim of this study is to analyse the perception that the youth population has of mental illnesses associated with the use of social networks. To do so, it analyses how centennials perceive them. Mental pathologies suffered by users are reviewed.

The starting hypotheses are:

H1. The majority of centennials suffer or have had symptoms of pathologies caused by social networks.

H2. At least half of the minors who use social networks are not aware that the abusive use of networks can cause them mental pathologies.

H3: The majority of Spanish centennials perceive social networks as a place for fun and entertainment and a minority are aware of the threat posed by social networks.

### **3. METHODOLOGY**

As a field study, quantitative research (López Romo, 1998 p. 40) has been carried out by collecting empirical facts describing the perceptions of the problems analysed in the underage population using social networks. The methodology focuses on a statistical analysis of a standardised questionnaire, using 8 closed questions and one open question. This questionnaire has been organised into 9 simple and brief questions, which have been sent to children aged between 16 and 18 in different locations in Spain. An online survey was used to collect the data.

The subjects chosen to participate in this study were 191 young adolescents, more specifically, aged between 16 and 18. Students, without identifying their sex, from high school and vocational training. There were no premises when it came to selecting the educational centres. The reason for this choice is to analyse generation Z (Martín and Medina, 2021). For this reason, an age range of 16 to 18 years has been chosen, as this is the main user audience of centennials who use social networks (Arab and Díaz, 2015) and are the ones who suffer most from these pathologies and addictions. The subjects reside in different localities in the province of Valladolid and public and private training centres were selected. The questionnaire was sent to 3 educational centres in the town of Valladolid: IES Vega del Prado, Instituto Politécnico Cristo Rey and IES Emilio Ferrari. The questionnaire was distributed between September and October 2020.

The method used was descriptive, using questions to adolescents about their knowledge of the risks of social networks and the mental pathologies that they can cause in their mental health. It has been possible to obtain a sufficient sample of data to verify the hypotheses and to find out how many adolescents have ever suffered from any of these pathologies.

This questionnaire has been used to identify the knowledge that centennials have of social networks, their opinions about them, to find out if they have ever had any symptoms of these mental pathologies and if social networks affect the mental health of minors.

The structure chosen for this questionnaire consisted of 8 questions with the possibility of 5/6 answers of varied choice and 1 long answer question with the possibility of explanation. The contents cover different areas: concepts and knowledge of ICT, frequency of use of both the Internet and social networks, opinions and symptoms related to the pathologies investigated.

After contacting several schools in Valladolid, a meeting was arranged with the school management. After which, a round of visits to each school was arranged. During school hours, a brief presentation and explanation of the study was given for 20 minutes, informing the children and resolving any doubts. The children filled in the surveys individually and anonymously at home. The distribution of the questionnaire was carried out by the teacher using the class lists. It was mainly done via email, although some teachers stated that they also distributed it via mobile instant

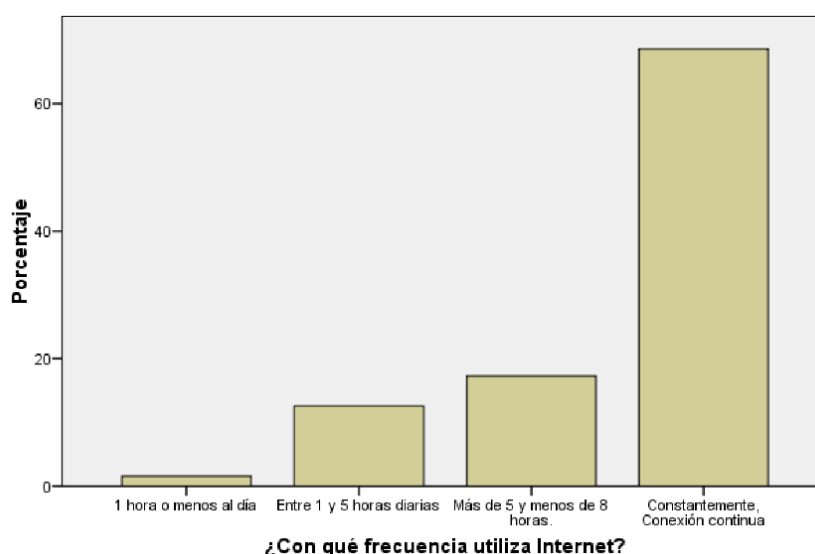
messaging social networks such as Whatsapp and Telegram in order to reach their students more easily. The responses obtained have been coded and statistically analysed using SPSS.

#### 4. RESULTS

According to the data obtained in this study, all respondents recognise new information technologies as a gateway to social networks. The use of continuous connection frequency predominates 68.5%, and with more than 5 hours and less than eight hours 17.3% followed by: between 1 and 5 hours 12.6%. The lowest percentage is 1.6% with responses to frequency of connection of 1 hour or less.

Centennials attach great importance to the use of social networks for pleasure and enjoyment 82.7%, followed by use for interest and gossip (9.4%) and in third place for work and fulfilment (6.3%), however, a minority of those who think they use it for social pressure (1.6%).

**Figure 1.** *Frequency of Internet use.*



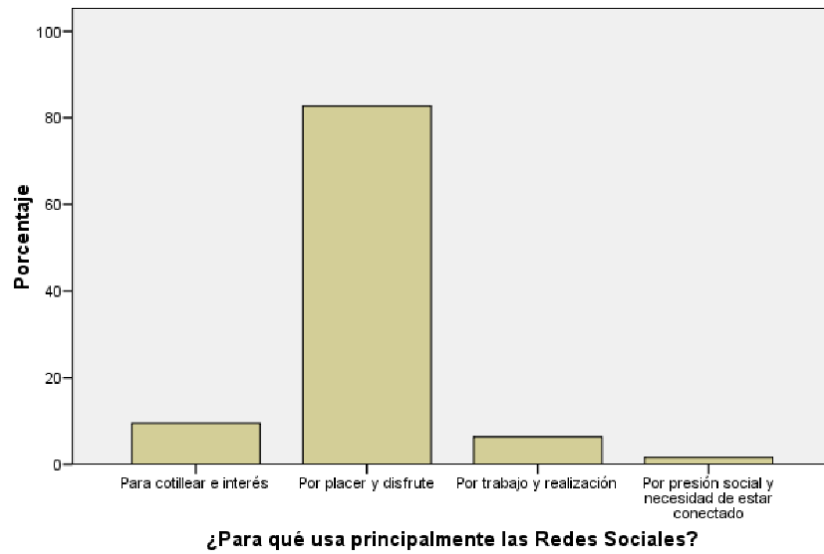
**Source:** *Own elaboration.*

37.7% consider social networks to be an opportunity or entertainment rather than a threat, compared to 62.3% who consider them to be a threat. The threats caused by social networks perceived by Spanish centennials stand out. The main one with 63.9% is the addition to these social networks. This is followed by loss of privacy (29.8%), followed by cyberbullying (4.7%) and grooming or sexual harassment (1.6%).

As for symptoms related to mental illness, just over a third, 37.3% of respondents do not know or do not answer this question. In the case of those who do answer, minors report suffering, or having suffered, some symptom related to any of the illnesses investigated in question. Half of those who have shown symptoms on some occasion, 36.1% have suffered from anxiety and depression, 18.8% from insomnia, followed by 6.3% from FOMO and ending with just over 1.5% who have suffered from eating disorders such as anorexia and bulimia.



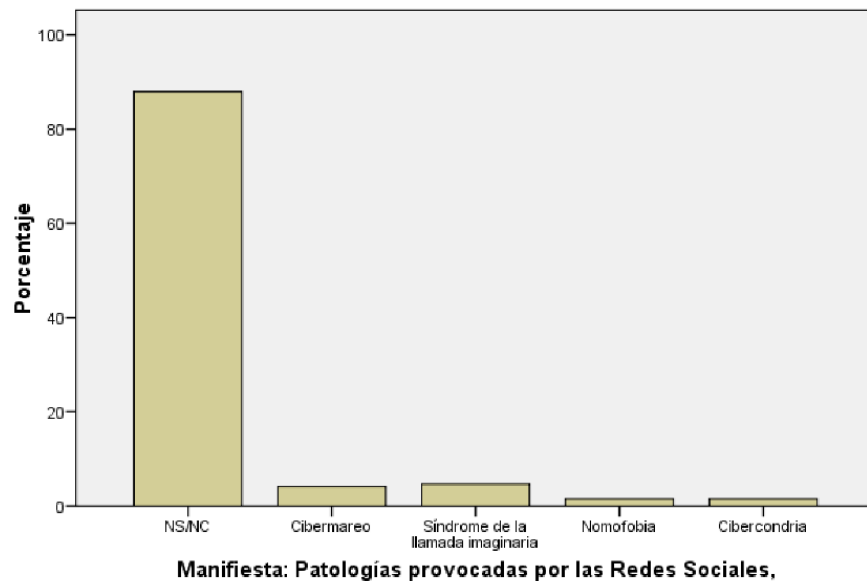
**Figure 2:** *Use of social networks.*



**Source:** *Own elaboration.*

The vast majority of the young people surveyed (88.0%) are unaware of having suffered from any of the new mental pathologies created by social networks, but 4.7% have suffered from the syndrome of the imaginary call, 4.2% have suffered from cybersickness, in third place with 1.6% suffer from nomophobia and in last place with 1.5% have also suffered from cyberchondria.

**Figure 3:** *Pathologies of Social Networks.*



**Source:** *Own elaboration.*

When asked about recommendations for use, 18 responses were obtained with their respective recommendations. This is an open-ended question with no compulsory answer. Compared to the previous ones, there was less participation, but it shows key data. Common and similar answers are observed, such as: parental control, limiting the number of hours in front of mobile devices,

reducing or reducing the amount of time spent with mobile devices. Informing centennials of the risks in schools, adapting mobile devices with control applications with the result of controlling the hours of use and thus reducing addiction. In addition to creating interests beyond social networks and motivations. As well as limiting use by encouraging and carrying out activities that are not linked to mobile technology.

When correlations were made between the rest of the variables, we did not obtain statistically representative values that indicate that the respondents who filled in the open question were different from the rest. However, a strong correlation was observed when relating the manifestation of symptoms related to mental illness and the pathologies caused by social networking. 84% of the cases have an expected frequency of less than 0.05, which gives us an asymptotic significance  $p=0.02$ .

Approximately one third of the cases are due to the fact that respondents stated that they did not know anything about symptoms or pathologies. 19 children reported having symptoms and pathologies. Among them, 5 people recognised having insomnia and being victims of the imaginary call, and 3 others were anxious, as can be seen in table 1.

**Table 1.** Contingency table Manifest: Pathologies provoked by Social Networks RR.SS., \* Manifests symptoms related to Mental Illnesses (Frequencies).

		Manifiesta síntomas relacionados con Enfermedades Mentales					Total
		NS/NC	Ansiedad y depresión	FOMO miedo a perderse algo en RR.SS.	Insomnio	Anorexia y bulimia	
Manifiesta:	NS/NC	67	61	9	29	2	168
Patologías	Cibermareo	4	2	0	1	1	8
provocadas	Síndrome de la	0	3	1	5	0	9
por las Redes	llamada	0	2	1	0	0	3
Sociales	imaginaria	0	1	1	1	0	3
	Nomofobia	0	1	1	1	0	3
	Cibercondria	0	1	1	1	0	3
Total		71	69	12	36	3	191

**Source:** Own elaboration.

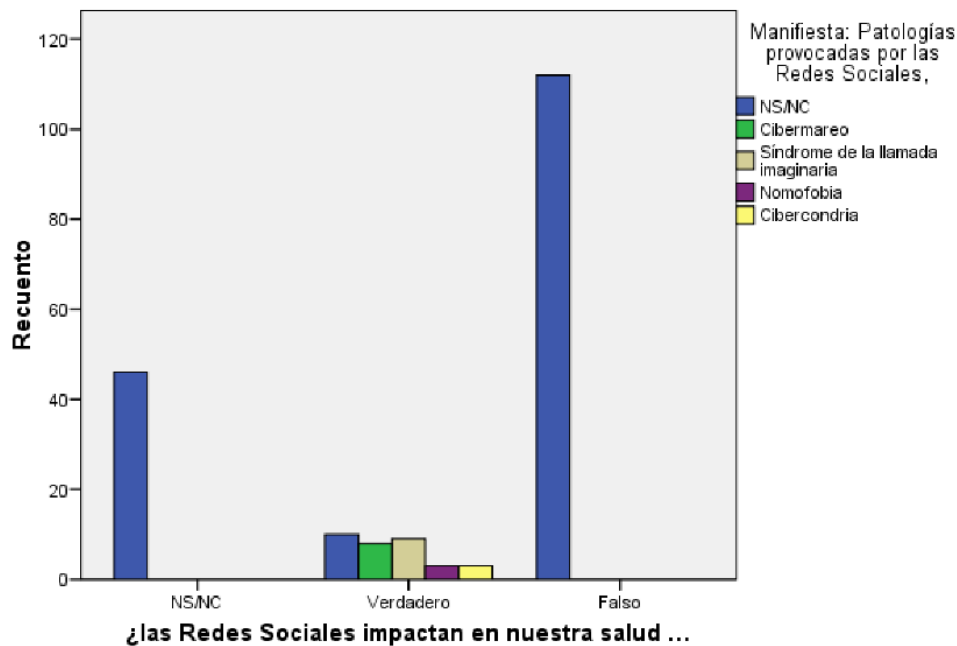
Finally, the last question was based on the main hypothesis to determine the opinion of centennials about whether social networks impact on our mental health, with a percentage of 58.6%, who consider it to be false. Only 17.3% say that social networks impact on our mental health. The remaining 24.1% do not have an opinion on this.

When we relate whether social networks have an impact on our mental health with the question on Pathologies caused by social networks, we see a logical relationship. Those young people who have responded have expressed cyber-phobia, imaginary call syndrome, nomophobia or cyberchondria, and are those who have responded that social networks do indeed impact on our

mental health. This leads us to deduce that those centennials who suffer from these pathologies are the ones who are most aware of how harmful the use of social networks can be. However, an overwhelming majority of minors who do not manifest pathologies consider that it is false that social networks have an impact on their mental health, considering this statement to be false.

A different reading can be seen in Figure 4 when relating the response of Impact of social networks on health to the question of pathologies. As Victor Amar (2010, p. 117) points out, education at home is important. Show centennials how to respect others when using the Internet and make sure they understand that the rules of good behaviour do not change from face-to-face.

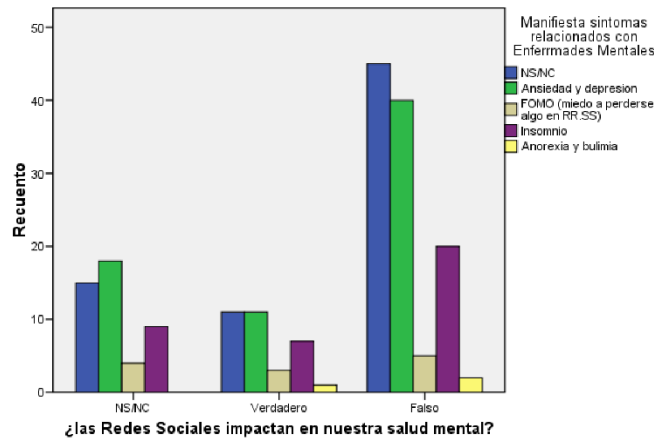
**Figure 4:** *Correlation of the impact of social networks with the manifestation of pathologies caused by social networks.*



**Source:** *Own elaboration. Note: Significance = 0.887.*

There is no relationship between the symptoms of illnesses detected and the impact on mental health. It can be concluded that young people do not consider that serious disorders such as anxiety, depression, insomnia have a real impact on their health. This aspect is dangerous because it denotes the risk of trivialising these aspects. As can be seen in Figure 5.

**Figure 5:** *Correlation of the Impact of social networks with the manifestation of symptoms related to social networks.*



**Source:** *Own elaboration.*

Among their own suggestions made by respondents were: Configure Google's SafeSearch search engine to prevent pages with sexual content from appearing, by selecting the option "use the strict filter", to filter out both explicit text and explicit images.

Young people have also recommended placing any technological devices in common areas of the home, for example, in the common study area, living room, lounge, etc. in order to make it more difficult for the aggressor to communicate with the victim when the technological device is in a place where everyone in the home can see it.

## 5. CONCLUSIONS

According to the data collected in this study, it can be affirmed that the main hypothesis H1, the majority of centennials suffer or have presented symptoms of the pathologies caused by social networks, would be confirmed and verified. The majority of centennials 62.3% of the users of social networks stated that they have suffered symptoms of the pathologies carried out in this research. The second hypothesis was that the majority of young users of social networks are not aware that the abusive use of social networks can cause mental pathologies, and this is the case with 88%. Most notably, these users had suffered some symptom of these pathologies, with anxiety and depression being detected in 36.1% of cases and insomnia in 18.8% of centennials.

Many psychological studies suggest that social networks have a direct impact on mental health. The high percentages collected in this study indicate that some centennials, 12% to be precise, have experienced some of the pathologies related to social networks, at least on some occasion. The data are even more alarming, with one third of young people having suffered from anxiety and depression, with the remaining third showing other symptoms related to the abuse of social networks. Only one third of the young people surveyed do not report symptoms related to these mental illnesses.

According to the second hypothesis H2, at least half of the minors who use social networks are not aware that the abusive use of networks can cause them mental pathologies, we can affirm that

minors are unaware of the pathologies they cause, such as cybersickness, the imaginary call syndrome, nomophobia or cyberchondria.

It is clear that a large number of centennials are unaware of the new mental pathologies caused by social networks, but they do experience symptoms related to some of these pathologies at some point in their lives, the most frequent being the imaginary phone call and the headache or dizziness associated with cybersickness.

Regarding the third hypothesis H3: A majority of Spanish centennials perceive social networks as a place for fun and entertainment and a minority are aware of the threat posed by social networks, it must be refuted since more than half of the minors, with a precise percentage of 62.3%, see social networks more as a threat than as an opportunity or entertainment, and see social networks more as a threat than as an opportunity or entertainment (37.7%). All of the above contrasts with the fact that the majority of children use social networks as a tool for pleasure and enjoyment (82.7%). This means that social networks are perceived more as a relief and pleasure, even as a de-stressing tool. However, they are aware of the consequences and dangers it can bring, highlighting the addiction and loss of privacy it causes.

The positive part of the study is that more than half of the children analysed do recognise social networks: more as a threat than as an opportunity for entertainment. In a sense, this is satisfactory because they are aware that they can be harmful and are one of the major problems of the consequences they cause, such as addiction, grooming, cyberbullying, among many others. It is necessary to raise awareness among adolescents and especially among minors so that they report these acts and do not become victims or aggressors. This could be facilitated by implementing the educational programme PRIRES, Programa de Prevención de Riesgos en las Redes Sociales (Avilés, 2014) or the Cyberprogram 2.0 (Garaigordobil and Martínez-Valderrey, 2018) in educational centres and in the family environment to carry out the recommendations of experts.

Collaterally, it has been observed that centennials abuse Internet use on a daily basis, with a recognised frequency of use of more than 5 hours a day in 85.7% of cases. Excessive exposure of even minors to the Internet is observed. They themselves declare a frequency of constant use and continuous connection of more than 8 hours per day. Experts should analyse and see the usefulness of implementing the necessary policies to limit usage time. It is the centennials themselves who understand the use and installation of parental control applications to have prior knowledge of children's use.

Good communication can be the key to tackling the problems that social networking sites cause for children. Parents and educators need to be able to prevent the risks and deal with the mental illnesses and consequences caused by social networks.

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- Arab, L. E. y Díaz, G. A. (2015). Impacto de las redes sociales e Internet en la adolescencia: Aspectos positivos y negativos. *Revista Médica Clínica Las Condes*, 26(1), 7-13. <https://doi.org/10.1016/j.rmcl.2014.12.001>
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## **AUTHOR CONTRIBUTIONS, FUNDING AND ACKNOWLEDGEMENTS**

**Authors' contributions:** **Conceptualisation:** López Iglesias, Matías y Claudia María Ruiz Velasco, Claudia María; **Methodology:** López Iglesias, Matías y Claudia María Ruiz Velasco, Claudia María; **Software:** no procede; **Validation:** Tapia-Frade, Alejandro; **Formal Analysis:** López Iglesias, Matías; **Research:** López Iglesias, Matías, Tapia-Frade, Alejandro y Claudia María Ruiz Velasco, Claudia María; **Recall:** López Iglesias, Matías y Claudia María Ruiz Velasco, Claudia María; **Data curation:** Tapia-Frade, Alejandro; **Writing-preparation of original draft:** López Iglesias, Matías y Claudia María Ruiz Velasco, Claudia María; **Writing-revision and editing:** López Iglesias, Matías; **Visualisation:** López Iglesias, Matías; **Supervision:** Tapia-Frade, Alejandro; **Project management:** López Iglesias, Matías. **All authors have read and accepted the published version of the manuscript:** López-Iglesias, M., Tapia-Frade, A. y Ruiz-Velazco, C.-M.

**Funding:** This research did not receive external funding.

**Acknowledgements:** This text comes from the Universidad Europea Miguel de Cervantes. Within the Communication and Digital Marketing Research Group.

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