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Internet use and abuse in the adult population of Galicia: Prevalence and associated characteristics

Uso y abuso de Internet en la población adulta de Galicia: Prevalencia y características asociadas

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Abstract

Internet use has rapidly spread around the world becoming an indispensable part of daily life. Despite its advantages, the dysfunctional use or abuse of the Internet can lead to addiction problems. The main objectives established in this study were to assess the prevalence of Internet use in the general Galician population and the prevalence of problematic internet use (PIU) and at-risk of PIU in 2017. The Surveillance Information System on Risk Behavior is based on annual cross-sectional surveys among the population aged at least 16 years residing in Galicia, Spain. A total of 7,841 participants were recruited in 2017 using a stratified random sampling. Internet users were classified into three categories: normal use, maladaptive/at-risk of PIU and PIU, based on their score in the Internet-related experiences questionnaire. A total of 74.8%, 95% CI [73.8-75.8], of the Galician population aged 16 to 74 used the Internet in the month before the survey was performed, exceeding 95% in the population aged below 45 years. Most users use chat applications and social networks. The prevalence of PIU or at-risk of PIU in the population aged 16 to 74 was 1.0% [0.8-1.3], reaching 5.2% [4.2-6.2] in the population aged between 16 and 24. The prevalence of Internet use in Galicia is slightly lower than those obtained in Spain and Europe. Moreover, PIU is an emerging problem in the population with the youngest population being the most affected.

Keywords: Internet addiction, problematic Internet use, behavioral addictions, mental health, adults

Resumen

El uso de Internet se ha extendido rápidamente por todo el mundo convirtiéndose en una parte indispensable de la vida cotidiana. A pesar de sus ventajas, el uso disfuncional o el abuso de Internet puede conducir a problemas de adicción. Los principales objetivos de este estudio fueron evaluar la prevalencia de uso de Internet, de uso problemático de Internet (UPI) o de riesgo de UPI en la población general gallega en 2017. El Sistema de Información sobre Conductas de Riesgo de Galicia (SICRI) se basa en la realización de encuestas transversales con periodicidad cuasianual entre la población de 16 años y más residente en Galicia, España. En 2017, se incluyeron a 7.841 participantes mediante un muestreo aleatorio estratificado. Los usuarios de Internet se clasificaron en tres categorías: uso normal, inadecuado/en riesgo de UPI y UPI, en función de su puntuación en el cuestionario de experiencias relacionadas con Internet. El 74,8%, 95% IC [73,8-75,8], de la población gallega de 16-74 años utilizó Internet en el último mes, siendo esta prevalencia superior al 95% en la población menor de 45 años. La mayoría de los usuarios utilizan aplicaciones de chat y redes sociales. La prevalencia de UPI o riesgo de UPI en la población de 16 a 74 años fue del 1,0% 95% IC [0,8-1,3], alcanzando el 5,2% 95% IC [4,2-6,2] en la población de 16 a 24 años. La prevalencia de uso de Internet en Galicia es ligeramente inferior a las obtenidas en España y Europa. Además, el UPI es un problema emergente en la población, siendo la población más joven la más afectada.

Palabras clave: adicción a Internet, uso problemático de Internet, adicciones conductuales, salud mental, adultos

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The Internet has recently become an indispensable part of daily life, being a useful tool for information, education, social communication, leisure and entertainment. While in 2009, the prevalence of Internet use among the European population aged 16 to 74 was 63.0%, in 2020 it reached 88.0% (Eurostat, 2020).

According to recent data from the Survey on the Equipment and Use of Information and Communication Technologies in Households, 93.2% of the Spanish population aged 16 to 74 used the Internet in the three months before the survey was performed (Instituto Nacional de Estadística, 2020). The proportion of users is similar among men and women but different according to age group. In total, 99.8% of the population between 16 and 24 were Internet users. Galicia, with a prevalence of use of 87.4% in the population aged between 16 and 74 years, is the Spanish region with the lowest percentage of users (Instituto Nacional de Estadística, 2020).

Behavioral addictions or non-substance addictions, have gained prominence in recent years as the use of new technologies has increased, highlighting the potential influence the Internet might have on these behaviors. Despite its advantages, the dysfunctional use or abuse of the Internet can lead to addiction problems, with the youngest population being the most vulnerable (Bousoño et al., 2017; Echeburúa & de Corral, 2010; Ruiz-Olivares, Lucena, Pino & Herruzo, 2010), especially adolescents (Leung, 2007). It should be noted that very few studies have thoroughly focused on middle-aged and older populations.

Internet addiction is an emerging problem in modern societies because specific diagnostic criteria are lacking and this addiction is not incorporated in diagnostic reference manuals. In addition, the terminology used to name this condition encompass various terms, such as “internet addiction” (Young, 1998), “problematic internet use” (Caplan, 2002), “pathological internet use” (Morahan-Martin & Schumacher, 2000), “excessive internet use” (Hansen, 2002) or “internet dependency” (Rahmani & Lavasani, 2011). Most of the above-mentioned terms are defined as behavioral addictions that should follow the diagnostic criteria models used in the diagnostic reference manuals for gambling (Caplan, 2002; Hansen, 2002; Young, 1998). However, other terms, such as pathological internet use, imply the presence of symptoms such as mood disturbance (Morahan-Martin & Schumacher, 2000). The term problematic internet use (PIU) will be used in the present study. PIU is described as an inability to self-control the use of the Internet resulting in excessive use which leads to clinical impairment or distress with negative consequences in daily life (Young & Nabuco, 2011). Some authors indicate that people with PIU have lower physical, psychological and social well-being, and it interferes with their daily activities and in their relationships with family and friends (Kalmus,

Siibak & Blinka, 2014). However, more articles are needed to characterize PIU as it is an emerging problem.

The prevalence of PIU is difficult to determine because of the lack of agreement on diagnostic criteria, terminology and measurement instruments. In Europe, prevalence of PIU among adolescents varies from 1.2% (Tsitsika et al., 2014) - 1.4% (Blinka et al., 2015) to 4.4% (Durkee et al., 2012). In Spain, the prevalence reported for adolescents ranged from 5.0% to 6.0% (Carbonell et al., 2012; Fernández-Villa et al., 2015; López-Fernández, Freixa-Blanxart & Honrubia-Serrano, 2013). To the best of our knowledge, to date there are no studies of prevalence of PIU in the adult Spanish population, except for those performed on adolescents. Furthermore, there are no studies that have analyzed characteristics associated with non-Internet users. Given that Galicia is the region with the lowest prevalence of Internet users, we believe it is important to know whether aspects such as being one of the regions with the oldest population or with a high number of people living in rural areas are related to not being Internet users.

Several objectives were established in this study: a) to assess the prevalence of Internet use in the general Galician population; b) to describe the Internet user profiles; c) to assess the prevalence of PIU and at-risk of PIU; d) to characterize the population with PIU and at-risk of PIU; e) to characterize non-Internet users.

Methods

Study area and population

A cross-sectional study was performed in Galicia, Spain, an autonomous northwestern region with an estimated population of 2.7 million in 2017. The boundaries of Galicia to the north and west are marked by the Atlantic Ocean, to the south by Portugal, and to the east by mainland Spain.

Data source

The survey, carried out in 2017 within the framework of the Risk Behavior Information System, targeted Galician residents who were at least 16 years of age. The sample was derived from the Galician GP patient database (Tarjeta Sanitaria), which accounts for 97.0% of the Galician population, using random sampling stratified by age group (16 to 24, 25 to 44, 45 to 64 and 65 and older). The sample size (7,841 in total) was calculated independently for each age stratum, considering an expected prevalence of 50% and an error of 3.5%.

The information was collected through a computer-assisted telephone interview (CATI) system and the questionnaire included questions regarding the use of the Internet. Internet use was defined by the affirmative answer to the following question: “In the last 4 weeks, have you connected to the Internet to use instant messaging, use social net-

works, check your mail, download music...?” Interviewers warned the respondent not to consider the time spent using the Internet at work and to take into account the connection both from computers and from mobile devices or tablets.

Internet addiction was assessed using the validated Internet-related experiences questionnaire (CERI) (Beranuy, Chamorro, Graner & Carbonell, 2009). Its internal consistency was described as around 0.77 and factor analysis showed a robust dimension composed by two constructs: intrapersonal and interpersonal conflicts. The CERI questionnaire consists of 10 items about Internet use habits, with 5 answer choices scored from 0 to 4 (0-never, 1-rarely, 2-occasionally, 3-very frequently, 4-always). The total score of the scale, which can range from 0 to 40 points, was used to classify Internet users into three groups: normal use (<18 points), maladaptive or at risk of PIU (18-25) and PIU (26 or above).

To characterize the population with PIU or at risk of PIU and non-internet users, logistic regression models were fitted. The following factors were introduced in the regression models in order to evaluate their possible association with PIU or with the non-use of the Internet: gender, age group, country of birth, residential environment (urban, semi-urban, rural) according to the Galician Statistical Institute (Instituto Galego de Estatística, 2016), employment status (workers, students, pensioners, others), educational level (basic, medium, high), marital status and self-perception of health. Furthermore, to characterize subjects with PIU or at-risk of PIU, self-perception of weight and connection time to chat applications, social networks and virtual reality games (<2 hours per day, ≥2 hours) were also ascertained. In the final model, variables with $p < .05$ were included.

Statistical analysis

The percentage, by gender and age categories, of individuals who have used the Internet for the last month, overall and for each type of application; the percentage of Internet users who spent 2 hours or more per day connected to each application and the percentage of individuals with PIU or at-risk of PIU were calculated.

Adjusted odds ratios (OR) of PIU and non-Internet users were estimated using a logistic regression model. Prevalence and adjusted ORs are presented with 95% confidence intervals (95% CI). The analysis was performed with the weighted sample using Stata v14.2. To compare data from the current survey with those previously published in Spain and Europe, the analysis was restricted to the 16 to 74 age group. The characterization of users with PIU or at risk of PIU was restricted to the population aged 16 to 24 years and that of non-Internet users to the population aged 45 to 74 years, since Internet use is practically universal in the youngest population.

Ethical approval

Ethical approval by the Galician ethics committee was not necessary because this study was voluntary and anonymous, ensuring full confidentiality. The study was conducted by telephone, and accordingly agreement to participate implies verbal informed consent.

Results

This study analyzed information provided from 7,841 adults aged 16 or over, with a response rate of 78.0%. Among these participants, 6,875 were between 16 and 74 years (1,829 of 16-24 and 3,039 of 45-74). The characteristics of the included population aged 16-74 years old are summarized in Table 1.

A total of 74.8%, 95% CI [73.8-75.8] of the Galician population aged 16 to 74 reported using the Internet in the month before the survey was performed. No differences were found in terms of gender, except for the group aged 45-54 in which the prevalence of use was eight percentage points higher in women in comparison to men (80 vs. 88%). Prevalence varied considerably according to the age group (Figure 1), above 95% in the population aged below 45 but not reaching 60% in the population between the ages of 45 to 74 years. Although the analysis was restricted only to the population aged 16 to 74, it should be noted that 65.3% 95% CI [64.4-66.2] of the Galician population aged 16 or older used the Internet in the month before the survey; the prevalence of use among the population aged 75 or over was only 6.8% 95% CI [5.3-8.4].

Most Internet users reported using chat applications and social networks, followed by virtual reality games as a distant third. Younger individuals (16-24 years) are those who most use all options with prevalences of 96.3% 95% CI [95.4-97.1] for chat applications, 82.5% 95% CI [80.7-84.2] for social networks and 17.8% 95% CI [16.1-19.5] for virtual reality games. It was found that females and males differ in their activities when they are connected to

Figure 1
Percentage of population aged 16-74 who has used Internet for the last 4 weeks

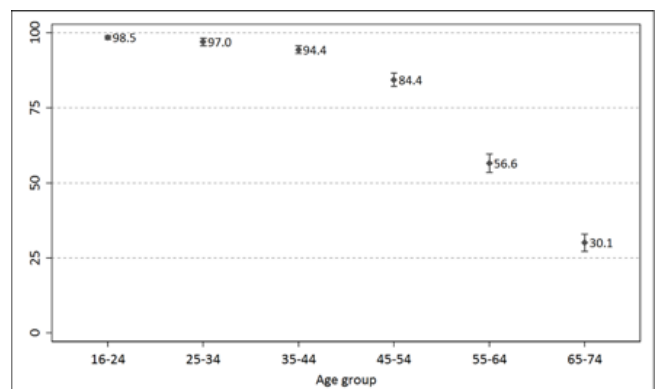
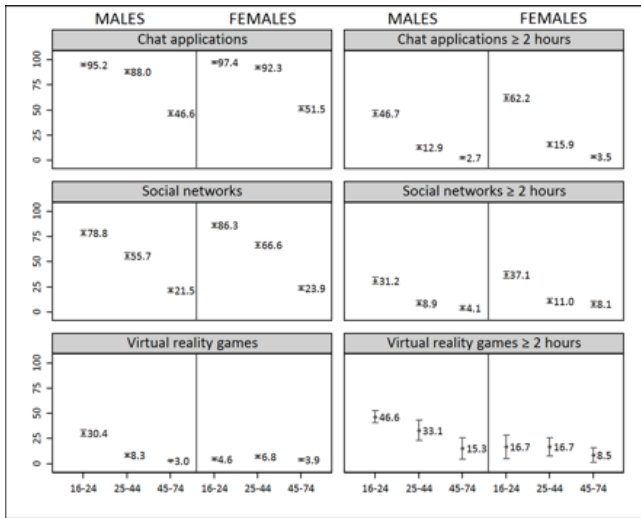


Table 1
Sociodemographic characteristics of the Galician population aged 16-74 years old

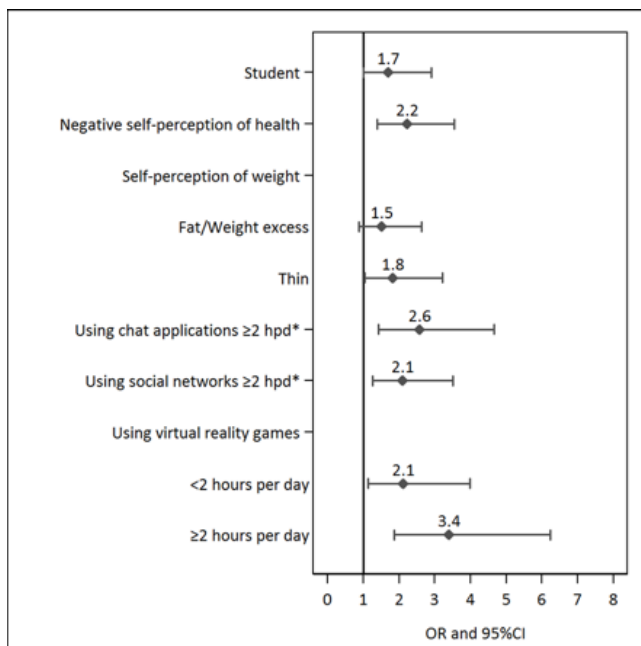
	n	%	95% CI	
Gender				
Male	3460	49.0	49.0	49.0
Female	3415	51.0	51.0	51.0
Age group				
16-24	1829	9.1	9.0	9.2
25-44	2007	34.9	34.6	35.2
45-64	2003	38.8	38.5	39.2
65-74	1036	17.2	17.0	17.4
Country of birth				
Spain	6297	91.7	91.0	92.4
Other country	578	8.3	7.6	9.0
Marital status				
Lives with a partner	3725	65.5	64.3	66.6
Does not live with a partner	3150	34.5	33.4	35.7
Educational level				
Basic	3014	44.9	43.7	46.0
Medium	2487	32.7	31.5	33.9
High	1374	22.5	21.4	23.5
Residential environment				
Urban	4214	61.4	60.1	62.6
Semi-urban	1745	25.2	24.1	26.3
Rural	905	13.4	12.6	14.3
Employment status				
Worker	3170	52.6	51.5	53.7
Student	1342	7.4	7.1	7.7
Pensioner	1276	21.7	21.0	22.5
Other	1087	18.3	17.3	19.2
Self-perception of health				
Very good	1076	13.1	12.3	13.9
Good	2859	39.7	38.5	41.0
Fair	2327	36.3	35.1	37.6
Bad-Very Bad	613	10.8	10.0	11.7
Self-perception of weight				
Fat/Weight excess	2641	43.2	42.0	44.5
Suitable weight	3513	47.6	46.4	48.9
Thin	721	9.2	8.4	9.9
WhatsApp hours of use				
Does not use	1848	32.3	31.2	33.3
Uses <2h	3741	57.6	56.4	58.7
Uses ≥2h	1286	10.2	9.6	10.8
Social networks hours of use				
Does not use	3455	58.4	57.3	59.5
Uses <2h	2730	36.1	34.9	37.2
Uses ≥2h	690	5.5	5.0	6.0
Virtual reality games hours of use				
Does not use	6296	93.8	93.2	94.4
Uses <2h	387	4.6	4.1	5.1
Uses ≥2h	192	1.6	1.3	1.9

Figure 2
Population who has used each Internet option, and Internet users who spent ≥2 hours/day connected



Note. Data are shown in percentage.

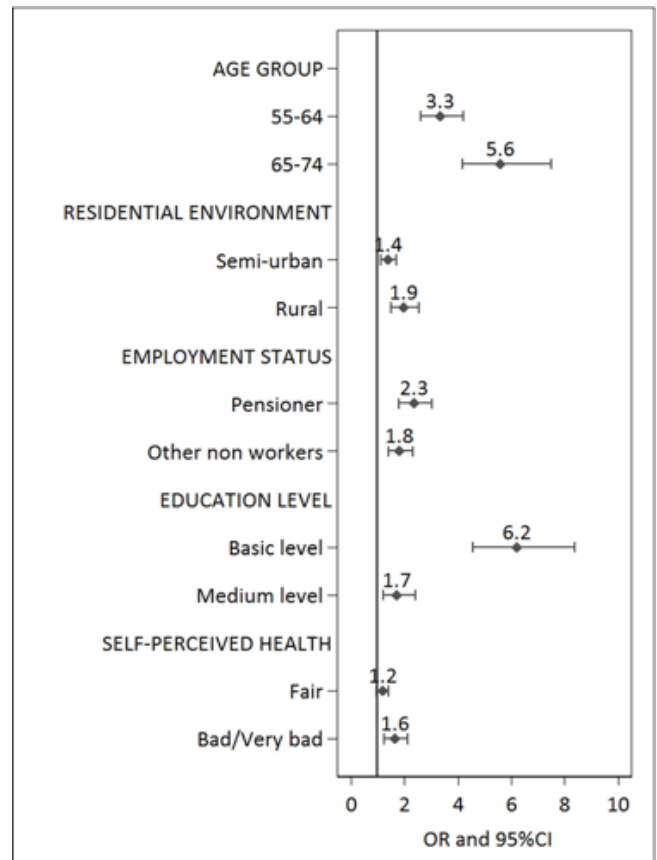
Figure 3
Characteristics associated with problematic or at-risk internet use (PIU) among Internet users aged 16-24



Note. *hpd: hours per day. Odds ratio (OR) and 95% confidence intervals (95% CI).

the Internet, thereby, prevalence of use was slightly higher in females than in males with regard to instant messaging applications and, chiefly, social networks. Males achieved the highest prevalence of virtual reality games use. These differences regarding gender are more evident in the use of virtual reality games among people aged 16 to 24 95% CI (30.4% [27.4-33.4] among males vs. 4.6% 95% CI [3.2-5.9] among females) (Figure 2).

Figure 4
Characteristics associated with not being an Internet user



Note. Odds ratio (OR) and 95% confidence intervals (95% CI).

The prevalence of PIU or at-risk of PIU in the population aged 16 to 74 was 1.0% 95% CI [0.8-1.3], being only 0.1% 95% CI [0.0-0.1] with PIU. If only the population aged between 16 and 24 is considered, this percentage reaches 5.2% 95% CI [4.2-6.2], most of them at-risk of PIU (4.7 95% CI [3.7-5.7] at-risk of PIU vs. 0.5% 95% CI [0.2-0.8] PIU).

Results of the multivariable logistic regression analysis are shown in Figure 3. Among Internet users aged 16 to 24, being a student, having a negative self-perception of health, not perceiving an adequate weight or spending 2 or more hours per day using chat applications, social networks or virtual reality games increases the probability of PIU or at-risk of PIU. This probability is approximately two-fold in individuals who use the Internet more than two hours per day, regardless of the type of use.

For the non-Internet user group, being older, living in a different area from urban (rural or semi-urban), being a pensioner, having a low level of education and having a negative self-perception of health, were more related with not using the Internet (Figure 4).

Discussion

In accordance with our data, prevalence of Internet use in the Galician population aged 16 to 74 is estimated at 74.8% in 2017. This result is similar to that obtained from the survey of the Spanish National Institute of Statistics for Galician population in the same year (79.4%) but the prevalence is lower than that obtained for the Spanish population (84.6%) (Instituto Nacional de Estadística, 2017a) and for the European population (84.0%) (Eurostat, 2019). It is important to emphasize that the reference period used to measure Internet use in this study differs to those other two studies. While in the survey of the Spanish National Institute of Statistics (Instituto Nacional de Estadística, 2017a) and Eurostat statistics (Eurostat, 2019) respondents were asked about Internet use in the last three months before the survey, in the current study it was set at one month.

The highest prevalence of Internet use in the Galician region is observed among population below 45 years, reaching 95.0%, with a maximum of 98.5% among the youngest (16-24 years). As age increases, Internet use decreases in both males and females, with the lowest percentage corresponding to the 65-74 age group (30.1%). This figure is clearly lower than those obtained for the Spanish and European populations in which 43.7% and 54.0% of individuals between 65 and 74 years used the Internet in the last three months, respectively (Eurostat, 2019; Instituto Nacional de Estadística, 2017a). Therefore, there is a greater number of non-Internet users in Galicia in comparison with Spain and Europe, especially in advanced age groups.

This study shows that chat applications, followed by social networking, were the most used tools among Internet users, especially by the youngest population. This is in line with a previous Spanish study conducted in 2016 on a population aged 14 to 18 (Ministerio de Sanidad, Consumo y Bienestar Social, 2016) which estimated that 99.6% of young people used WhatsApp, 97.9% social networks and 6.0%, mainly male, made online bets in the last month. Previous studies have also shown differences between males and females in relation to the activities chosen when they are connected (Andreassen, Torsheim, Brunborg & Pallesen, 2012; Carbonell, Fúster, Chamarro & Oberst, 2012; Fernández-Villa et al., 2015; Ha & Hwang, 2014; Kuss & Griffiths, 2011; Liang, Zhou, Yuan, Shao & Bian, 2016). Our results support the hypothesis that females are more likely to use social networks and chat applications whereas males spend more time than women playing virtual reality games.

According to the data obtained in the current study, prevalence of PIU among Galician population aged 16 to 74 is estimated at 0.1%, reaching 0.5% if only the population between 16 and 24 is considered. In this group it should be noted that almost 5% of them are at-risk of PIU. Although several investigations have studied this phenomenon there

are no reliable data on the overall prevalence, mainly because of the lack of agreement on the terminology used, diagnostic criteria and diagnostic instruments (Kuss & Griffiths, 2011). It is noteworthy that most of these studies have focused on adolescents or young people since they are most likely to develop PIU. The EU Kids Online survey identified that 1% of children aged 11–16 might show pathological levels of Internet use (Smahel et al., 2012). Very similar figures were obtained by Tsitsika et al. (2014) and by Blinka et al. (2015) who estimated a PIU prevalence among European adolescents of 1.2% and 1.4%, respectively. However, the study conducted within the framework of the European funded project *Saving and Empowering Young Lives in Europe* (SEYLE) in a representative sample of adolescents, found a slightly higher PIU prevalences estimating that 4.4% and 13.5% are maladaptive users (Durkee et al., 2012).

In Spain, prevalence of PIU in adolescents and young populations varies widely across studies. A study conducted on adolescents from Madrid has reported a prevalence of PIU of 3.7% (Estévez, Bayón, de la Cruz & Fernández, 2009). Other studies also conducted on Spanish adolescents estimate prevalences varying from 5 to 6% (Carbonell et al., 2012; Fernández-Villa et al., 2015; López-Fernández et al., 2013). The highest prevalence was found in the study carried out by Muñoz-Rivas, Fernández & Gámez-Guadix (2010) with 9.9% of excessive users among university students. Two studies carried out in Galicia should be mentioned, since they estimated prevalences of PIU among Galician adolescents of 19.9% and 16.3% (Gómez, Rial, Braña, Varela & Barreiro, 2014; Gómez, Rial, Braña, Golpe & Varela, 2017). Although other studies found a greater risk of PIU than the current study, their samples were mostly composed of teenagers, in comparison with the current study conducted on subjects aged 16 and over. Therefore, age might explain the differences between our findings and those of previous studies.

In this study, no statistically significant differences regarding gender were found in the prevalence of PIU. This information contradicts results reported in another Galician study in which being an adolescent female was associated with a higher risk of PIU (Gómez et al., 2017). In contrast, scientific literature exists in which males are most at risk (Kormas, Critselis, Janikian, Kafetzis & Tsitsika, 2011; Sánchez-Carbonell, Beranuy, Castellana, Chamarro & Oberst, 2008; Tsai et al., 2009).

In a study conducted in university students from several Spanish universities, in which 2,780 participants with an average age of 20.8 years (± 5.1 years) participated, an association was found between PIU and having a poor self-perception of health, being a thin or overweight/obese person and using applications such as chats, social networks and games (Fernández-Villa et al., 2015). These results are consistent with those found in our study in the 16-24 age group. In another study, carried out at the University of Zaragoza,

involving 698 students (mean age: 21.96 ± 5.43), an association was found between PIU and the number of hours of daily internet exposure (Ramón-Arбуés et al., 2021). In our study, this association was also observed, increasing the probability of PIU when the time spent on the Internet was more than 2 hours per day.

To our knowledge, this is the first study to characterize non-Internet users. Factors such as older age or living in rural areas have been found to be related to not being an Internet user in the current study. These factors may explain why Galicia is the region with the lowest prevalence of Internet users in Spain, since according to data from the Galician Institute of Statistics and the Ministry of Agriculture, Fisheries and Food, 19.1% of the population is over 64 years old (11.6% between 65-74 years old) (Instituto Galego de Estatística, 2017a) and 26% of Galicians live in rural areas (Ministerio de Agricultura, Pesca y Alimentación, 2017), where the internet sometimes does not reach. In fact, the percentage of Galician homes with Internet access is almost 5 percentage points below the Spanish average (78.8% vs. 83.4%) (Instituto Galego de Estatística, 2017b).

There are studies that show that within Spain there are digital divides between the different regions when it comes to accessing the Internet (Carmona-Martínez & García-Jiménez, 2007; Lera-López, Gil-Izquierdo & Billón-Currás, 2009). Some authors indicate that these differences between regions may be associated both with sociodemographic variables such as educational level, age, labor occupation or degree of rurality, and with regional variables such as GDP per capita, percentage of employment in the services sector or net ICT capital (Lera-López et al., 2009). In relation to sociodemographic variables, Galicia, in 2017, was the region with the highest aging rate behind Asturias (Instituto Nacional de Estadística, 2017b) and one of the regions with the highest percentage of population residing in rural areas (26%) (Ministerio de Agricultura, Pesca y Alimentación, 2017), and of pensioners (8.1%) (Agencia Tributaria, 2017). These variables decrease the probability of using the Internet and also coincide with some of the characteristics that increase the probability of not being an Internet user found in this study. In relation to the regional variables, Galicia, with 27.5%, was one of the regions with the lowest percentage of the average population employed in the service sector, ranking 13th among the others (Instituto Nacional de Estadística, 2017c). In addition, the figure for Galicia in relation to GDP per capita places it as the tenth region with the highest GDP per capita, a figure that is 10 percentage points below the national figure (Galicia: €24,497 vs. Spain: €24,999) (Instituto Nacional de Estadística, 2018). On the other hand, Galicia is one of the regions with the highest net ICT capital, 4.6% of the national total, although it is quite far from Madrid and Catalonia, which are the regions with the highest net ICT capital, 27.9% and 20.2% of the national total, re-

spectively (Mas-Ivars, Pérez-García, Benages-Candau, Robledo-Domínguez & Vicente-Carrión, 2021). The fact that Galicia is among the regions with the lowest percentage of employment in the service sector and with the lowest GDP per capita, together with the characteristics of the Galician population mentioned above, may explain why Galicia is the region with the lowest percentage of Internet users.

The lack of diagnostic criteria is a clear limitation to measuring PIU. There are different tests and scales to estimate the prevalence of PIU. The main limitation is that these PIU estimates vary considerably depending on the measurement instrument used. Thus, in Spain several scales have been used such as Problems Related to Internet use (PRI) (Gracia-Blanco, Vigo-Anglada, Fernández-Pérez & Marcó-Arbonés, 2002), Internet Addiction Test (IAT) (Echeburúa, 1999), CERI questionnaire (Beranuy et al., 2009) or Problematic Internet Use Scale in adolescents (PI-US-a) (Rial, Gómez, Isorna, Araujo & Varela, 2015). The most crucial objective for future research is to achieve consensus on the conceptualization of the phenomenon itself, on the identification of its diagnostic criteria, and on the use of a common measurement scale or test, in order to facilitate the comparison of data from different studies.

Among the main limitations of this study, it is important to highlight that prevalences may be underestimated because they are based on self-declaration of behaviors. In addition, we jointly analyzed individuals with PIU and at-risk of PIU in the same category, due to the low sample size of individuals with PIU, which complicates analyzing both categories separately.

The large sample size and the inclusion of individuals from 16 years and old is the major strength of this study, and because it guarantees representativeness of the population. The sample was selected from a base which accounts for 97.0% of the Galician population, the 3% not included represents individuals who have not had contact with the public health system. The impact of not having included them is negligible. To our knowledge, this is the first study to assess the prevalence of PIU in the adult Spanish population.

Our findings indicate that the prevalence of Internet use in Galicia is slightly lower than those obtained in Spain and Europe. Addictions not linked to substance use constitute a Public Health problem and both educational and regulatory measures should be directed especially to younger population and vulnerable groups. Older individuals and those with basic studies are most unlikely to be Internet users. Moreover, PIU is an emerging problem in the population, being the youngest population the most affected.

Conflict of interests

All authors declare that they have no conflicts of interest.

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