

## PROBLEMS RELATED TO THE USE OF THE INTERNET AND COMMUNICATION TECHNOLOGIES

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**Abstract:** In recent decades, the Internet and information and communication technologies (ICT) have become an essential tool in everyday life, especially for the younger population. Problems relating to the use of the Internet and ICT arise when individuals begin to neglect their daily routines and activities in order to stay online, thus modifying daily routines, skipping meals, subtracting hours of rest, and altering sleep schedules. In both 2015 and 2017, almost 3% of the population aged between 15 and 64 years old had a possibly compulsive usage of the Internet in Spain, which would mean an estimated figure of approximately 900,000 individuals. Internet addiction, otherwise known as problems relating to the use of the Internet and ICT, is today a diagnostic category that is not included in either of the two reference manuals: the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD). As a result, a great amount of heterogeneity may be observed when referring to this phenomenon. There is also a wide range of diagnostic tools that try to measure this phenomenon by assessing different aspects related to the use of the Internet and ICT.

**Keywords:** Internet use, problematic Internet use, Internet addiction, information and communication technologies.

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## LOS PROBLEMAS RELACIONADOS CON EL USO DE INTERNET Y LAS TECNOLOGÍAS DE LA COMUNICACIÓN

**Resumen:** Internet y las tecnologías de la información y la comunicación (TIC) se convirtieron en las últimas décadas en una herramienta imprescindible en la vida cotidiana, especialmente para la población más joven. Los problemas relacionados con el uso de internet y las TIC surgen cuando las personas empiezan a descuidar sus rutinas y actividades diarias para permanecer conectadas, modificando rutinas cotidianas, eliminando comidas, restando horas de descanso y alterando los horarios de sueño. Tanto en 2015 como en 2017 casi un 3% de la población de 15 a 64 años realizó un posible uso compulsivo de internet en España, lo que supondría una cifra estimada de aproximadamente 900.000 personas. La adicción a internet, o los problemas derivados del uso de internet y las TIC hoy en día es categoría diagnóstica que no está incluida en ninguno de los dos manuales de referencia: Manual Diagnóstico y Estadístico de los Trastornos Mentales (DSM) Y Código Internacional de Enfermedades (CIE). En virtud de lo anterior, se observa una gran heterogeneidad a la hora de referirse al fenómeno y, además, existen multitud de herramientas diagnósticas que intentan medir este fenómeno valorando diferentes aspectos relacionados con el uso de internet y las TIC.

**Palabras clave:** Uso de internet, uso problemático de internet, adicción a internet, tecnologías de la comunicación.

## OS PROBLEMAS RELACIONADOS COM O USO DA INTERNET E DAS TECNOLOGIAS DA COMUNICAÇÃO

**Resumo:** Nas últimas décadas, a Internet e as tecnologias da informação e da comunicação (TIC) converteram-se numa ferramenta imprescindível na vida cotidiana, especialmente para a população mais jovem. Os problemas relacionados com o uso da Internet e das TIC surgem quando as pessoas começam a negligenciar as suas rotinas e atividades diárias para permanecerem ligadas, modificando rotinas diárias, eliminando refeições, subtraindo horas de descanso e alterando os horários de sono. Tanto em 2015 como em 2017, quase 3% da população de 15 a 64 anos fez um possível uso compulsivo da Internet em Espanha, o que seria um número estimado de aproximadamente 900.000 pessoas. A atual adição à Internet ou os problemas decorrentes do uso da Internet e das TIC pertencem a uma categoria de diagnóstico que não está incluída em nenhum dos dois manuais de referência: Manual Diagnóstico e Estatístico de Distúrbios Mentais (DSM) e Código Internacional de Doenças (CID). Em virtude do exposto, observa-se uma grande heterogeneidade ao referir-se ao fenómeno e, além disso, existem variadíssimas ferramentas de diagnóstico que tentam medir este fenómeno, avaliando diferentes aspetos relacionados com o uso da Internet e das TIC.

**Palavras-chave:** Uso da internet, uso problemático da internet, adição à internet, tecnologias da comunicação.

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### INTRODUCTION

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In recent decades, the Internet and information and communication technologies (ICT) have become an essential tool in everyday life, especially for the younger population, who use them to access a wide variety of content through multiple devices in order to interact, learn, have fun, and play (Cho et al., 2014). Available studies indicate how a portion of the population, especially the young, is developing maladaptive use patterns. These patterns are leading to the development of problems in the daily lives of these individuals, both in their family and interpersonal relationships and in their emotional stability (Griffiths & Meredith, 2009; Ko, Yen, Yen, Chen, & Chen, 2012).

Problems related to the use of the Internet and ICT arise when individuals begin to neglect their daily routines and activities in order to stay on line, thus modifying daily routines, skipping meals, subtracting hours of rest, and altering sleep schedules. Staying online for more than 3 or 4 hours a day contributes to isolation, loss of interest in other activities, poor academic or work performance, behavioural disorders, as well as sedentary lifestyles and obesity .

The term “Internet addiction” was first used by Young (Young, 1998) and refers to a problem that is receiving increasing attention from the scientific community. In recent years, several studies have been conducted to better understand the magnitude of this phenomenon and its aetiology, to propose screening and diagnostic tools and, at the same time, to propose help and preventive interventions for individuals with this problem.

The aforementioned report on behavioural addiction (Observatorio Español de las Drogas y las Adicciones, 2019) states that, in both 2015 and 2017, almost 3% of the Spanish population aged between 15 and 64 years old potentially used the Internet compulsively, which would mean an estimated figure of approximately 900,000 individuals (the prevalence is similar for men and women). The prevalence of a possible compulsive use of the Internet is higher among younger individuals (between 15 and 24 years old). When assessing the presence of different self-reported conditions among individuals with a possible compulsive use of the Internet compared to the general population, it is observed that young individuals report suffering from anxiety, insomnia, and depression more frequently.

However, Internet addiction is currently still a diagnostic category that is not included in either of the two reference manuals (the DSM and the ICD). As a result, there is a great degree of heterogeneity when dealing with this phenomenon (Consellería de Sanidade, 2019). Besides “Internet addiction”, there are studies which categorise this phenomenon as “pathological Internet use” (Morahan-Martin & Schumacher, 2000), “problematic Internet use” (Caplan, 2002), “excessive Internet usage” (Hansen, 2002), or “Internet dependency”. This inconsistency also affects the set of symptoms listed by each author. As a result, the diagnostic tools available measure different aspects relating to the use of the internet and ICT. Different scales are used in Spain, such as “Problemas Relacionados con el Uso de Internet” (De Gracia Blanco, Vigo Anglada, Fernández Pérez, & Arbonès, 2002), “Test de Adicción a Internet” (Echeburúa, 2000), “Cuestionario de Experiencias Relacionadas con Internet” (Beranuy Fargues, Chamarro Luser, Graner Jordania, & Carbonell Sánchez, 2009), or “Escala de Uso Problemático de Internet en Adolescentes” (Rial Boubeta, Gómez Salgado, Isorna Folgar, Araujo Gallego, & Varela Mallou, 2015).

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**SCREENING FOR PROBLEMATIC USE OF THE INTERNET**

A recent literature review (Laconi, Rodgers, & Chabrol, 2014) identified 45 tools designed to assess Internet addiction (in 23 different languages). Among the scales found, only 17 had more than one study evaluating their psychometric properties, and only 10 had three or more evaluation studies. This review points out that the Compulsive Internet Use Scale (Meerkerk, Van Den Eijnden, Vermulst, & Garretsen, 2009) is a brief tool that has been validated properly, with good psychometric properties, consisting of 14 items (Table 1. Compulsive Internet Use Scale (CIUS)) measured on a 5-point scale (0, never; 1, seldom; 2, sometimes; 3, often; and 4, very often). The total score is therefore 56 points. A score higher than or equal to 28 would indicate risk for possible compulsive Internet use.

*Table 1. Compulsive Internet Use Scale (CIUS)*

<b>Compulsive Internet Use Scale (CIUS)</b>
1. Do you find it difficult to stop using the Internet when you are online?
2. Do you continue to use the Internet despite your intention to stop?
3. Do others (e.g., partner, children, parents) say you should use the Internet less?
4. Do you prefer to use the Internet instead of spending time with others (e.g., partner, children, parents)?
5. Are you short of sleep because of the Internet?
6. Do you think about the Internet, even when not online?
7. Do you look forward to your next Internet session?
8. Do you think you should use the Internet less often?
9. Have you unsuccessfully tried to spend less time on the Internet?
10. Do you rush through your (home) work in order to go on the Internet?
11. Do you neglect your daily obligations (work, school, or family life) because you prefer to go on the Internet?
12. Do you go on the Internet when you are feeling down?
13. Do you use the Internet to escape from your sorrows or get relief from negative feelings?
14. Do you feel restless, frustrated, or irritated when you cannot use the Internet?

The CERI scale (Beranuy Fargues et al., 2009) is brief (10 items) and has been validated for use in the Spanish population (Tabla 2. Cuestionario de Experiencias Relacionadas con Internet (CERI)). The items on this scale have four response options (1 seldom; 2 sometimes; 3 often; and 4 almost always). This scale measures 2 different factors: intrapersonal conflicts and interpersonal conflicts.

The authors set 3 cut-off points: individuals with no problems (10 to 17 points), individuals with occasional problems (18 to 25 points), and individuals with frequent problems (26 to 40 points).

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*Tabla 2. Cuestionario de Experiencias Relacionadas con Internet (CERI)*

<b>Cuestionario de Experiencias Relacionadas con Internet (CERI)</b>
1. Does getting online help you avoid problems whenever you have them?
2. How often do you look forward to getting online again?
3. Do you think life without the Internet is boring, empty, and sad?
4. Do you get angry or irritated when someone bothers you while you are online?
5. Does time go by without you noticing whenever you are online?
6. Do you find it easier or more comfortable to interact with people through the Internet than in person?
7. How often do you make new friends with people online?
8. How often do you give up things you are doing to stay online for longer?
9. Do you think that your academic or work performance has been negatively affected by the use of the Internet?
10. Do you feel restless or worried every time you are not online?

Another brief and easy-to-administer tool is the Problematic Internet Use Scale in adolescents (PIUS-a) (Rial Boubeta et al., 2015). This is an 11-item questionnaire which can be scored using a 5-point Likert scale (from 0, totally disagree, to 4, totally agree).

If no specific tool is used, the severity of the problem may be assessed by evaluating the presence of the following warning signs (Cía, 2013):

1. Abnormally long Internet connection periods.
2. Sleep deprivation to stay online.
3. Neglect of other activities (family contact, social relationships, study, or health care).
4. Poor school performance.
5. Complaints from the social environment about the use of the Internet.
6. Recurring thoughts about using the Internet.
7. Negative symptoms (irritability, anxiety) when not using the Internet, or when not able to connect.
8. Failed attempts to limit connection time.
9. Attempts to hide (lie, deceive) about the real amount of time spent using the Internet.

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### TREATMENT

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A 2016 review examined the existing literature on interventions to help individuals with problems related to the use of the Internet (Kuss & Lopez-Fernandez, 2016). This review identified a body of research examining psychopharmacotherapy, psychological therapy, and combination therapy. The authors listed some strategies that appear to be effective in some populations. However, they conclude that a consensus on diagnostic criteria and measures is needed to improve reliability across studies and to develop effective and efficient treatment approaches for those seeking treatment.

The WHO and the American Academy of Pediatrics have recently issued a series of recommendations on the use of the Internet and ICT that will be addressed in the next article.

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### RINSAD

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