













Behavioral addictions in different addictive disorders and their influence on Higher Education**Adicciones de comportamiento en diferentes trastornos adictivos y su influencia en la Educación Superior**

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**Abstract**

The high use of mass media and video games has strongly attracted the attention of the actors involved in education, questioning the influence that different uses of ICT can present and affect students to the extent of creating a behavioral addiction, if they are aware of its impact and if they negatively influence the learning capacity of students, reflected in the high rate of failure and/or dropout, the objective of this research. After analysis and design, a survey (Cronbach's α 0.9434) was applied to undergraduate students of Tecnológico Nacional de México (TecNM), of Engineering: Biochemistry, Computer Systems, Electrical and Industrial, to know their opinions, if there is any addictive behavior of the use of the Internet and the video games and if they consider that they affect their academic performance; The responses indicate a minimal influence that the use of the Internet affects their academic performance and therefore failure and desertion.

Resumen

El elevado uso de los medios masivos de información y los videojuegos, han llamado fuertemente la atención de los actores involucrados en la educación, cuestionándose por conocer la influencia que diferentes usos de las TIC's puedan presentarse y afectar a los estudiantes al grado de crear una adicción de comportamiento, si están conscientes de su afectación y si influyen negativamente en la capacidad de aprendizaje en los estudiantes, reflejados en el elevado índice de reprobación y/o deserción, objetivo de esta investigación. Previo análisis y diseño se aplicó una encuesta (α de Cronbach 0.9434) a estudiantes de licenciatura del Tecnológico Nacional de México (TecNM), de las Ingenierías: Bioquímica, Sistemas Computacionales, Eléctrica e Industrial, para conocer sus opiniones, si hay algún comportamiento adictivo del uso de internet y los videojuegos, si consideran que afectan su desempeño académico; las respuestas señalan una mínima influencia que el uso del internet afecta su desempeño académico y por lo mismo a la reprobación y la deserción.

Behavioral addictions in different addictive disorders and their influence on Higher Education**OBJECTIVES**

Analyze behaviors considered as possible addictions in the use of:



Internet



Video games

METODOLOGY

Quantitative
Experimental
Descriptive

RESULTS

Chronbach α 's = 0.9434
Approximate values (<20%) in the recognition of the impact of the use of the Internet and video games on academic performance



CONTRIBUTIONS
Parameters of internet and video game use in relation to your academic activity

**Adicciones de comportamiento en diferentes trastornos adictivos y su influencia en la Educación Superior****OBJETIVOS**

Analizar comportamientos considerados como posibles adicciones en el uso de:



Internet



Videojuegos

METODOLOGÍA

Cuantitativa
Experimental
Descriptiva

RESULTADOS

α de Chronbach = 0.9434
Valores aproximados (<20%) en el reconocimiento de afectación por el uso de internet y videojuegos en el desempeño académico



CONTRIBUCIONES
Parámetros del uso de internet y videojuegos en relación con su actividad académica

**Addictions, disorders, education Resumen****Adicciones, trastornos, educación**

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Introduction

Behavioural addictions, also known as ‘non-substance addictions’, are those in which the subject loses control of his or her conduct, behaviour or actions, interfering in different aspects of his or her family, social, work or study life.

There are some routine behaviours that are initially harmless, which, depending on the frequency and intensity with which they are applied and in certain circumstances or contexts, can result in a behavioural addiction.

In 2018, the WHO published its ICD-11 (International Classification of Diseases) including, among others, ‘Video Game Disorder’ within the category ‘Disorders due to addictive behaviours’, which emphasises the interest in knowing them and the orientation that behavioural addictions present worldwide.

These have much in common with substance addictions, such as lack of control over behaviour, psychological dependence, the increasing need to increase the time spent on the activity, as well as the loss of interest in different activities that were previously pleasurable, which can lead to family and social isolation of the individual. They differ fundamentally in that in the former there is no intake of addictive substances, it is considered that the two types of addictions are caused by the emotional demand to carry out an activity, behaviours that produce different chemical compounds in the brain that produce emotional pleasure and a feeling of well-being.

According to the American Psychiatric Society, among behavioural addictions, only gambling and video game addiction are considered as diseases (DMS, fifth ed.), although there are other behavioural disorders such as food addictions, compulsive shopping, internet and smart phone addictions (social networks) that are currently under investigation, the last two having the greatest negative impact on educational processes and learning.

According to (INEGI (2021)), 78% of those interviewed reported using the internet and 84% of those interviewed reported using a social network.

According to the National Survey on the Availability and Use of Information Technologies in Households (ENDUTIH), of the 35.3 million young people who use the internet, 33.9 million (96.1 %) interacted on social networks (INEGI, 2020).

A social network can be defined as a set of human relationships that have an impact on any person's life.

The formation of social networks appeared in very early stages of the evolution of human societies, and today as then they are widely spread, the tendency to seek the support of other people has always characterised human beings, to share or exchange ideas and needs, particularly in certain stressful situations, in need of rapprochement.

Porrit, quoted by Lobo (1987), has indicated that social bonds can not only act as a social support system, but can even prevent physical or mental disorders in times of intense difficulties.

During the development of a human being many personal and academic activities can represent precisely stressful situations, difficult to overcome, which is probably the reason to look for some activity that allows him/her to evade them, currently being technological applications, the internet, the use of social networks, entertainment in video games.

However, excessive and unlimited use, without control, if the individual does not have the ability to regulate this feeling, can lead to a behavioural addiction which can affect many aspects of their life, their performance at work, at school, with their family and friends.

Thus, this research project seeks to find out the type of addictive or non-addictive behaviour in Engineering students, analysing their answers to a survey on Internet and video game addictions, seeking to find some relationship with the low school performance and high rates of failure and dropout that prevails in them.

Methodology

An educational research was conducted working a quantitative methodology, with a descriptive and experimental research design, with the purpose of verifying and gathering information from Engineering students of Higher Education Institutions and taking as a basis the established criteria of a behavioural addiction according to the AMP (American Psychiatric Association), (2013), Beranuy M. et. al. (2009), in order to discern whether this problem exists and if so, how it is affecting their learning in a way that may be influencing or may be the reason for the high failure and dropout rates shown by these students.

We began with a review of the literature and previous studies on behavioural addictions and how they influence the social, personal and academic life of students, which allowed us to pose the research question and delimit the research objectives.

A first version of the information collection instrument was then designed, after which it was piloted and subjected to statistical validation of content using the Kolmogorov index technique and Varimax rotation, after which the questionnaire was modified in the question (number 11 of the original survey) and the suggestions made by the teacher researchers participating in the research were also taken into consideration.

The design of the survey was based on the questions of the DSM-5, section 3, 5th Edition, taking as a basis the questions of the DSM-5, section 3, 5th Edition. Edition, taking, for the purposes of this research, 2 units of competence: video games and use of internet applications, after revision and adaptation to everyday language, grouped into 34 questions.

A total of 264 students were selected from the Bachelor's Degrees in Computer Systems Engineering, Biochemical Engineering, Electrical Engineering and Industrial Engineering, all students of the TecNM, Tuxtla Gutiérrez Campus and Mérida Campus, who were invited to participate in this educational research with the aim of finding out their opinions by freely and voluntarily answering the previously validated survey.

The SPSS v.24 statistical package was used to analyse the data obtained, which allowed the mean and standard deviation of each item to be calculated, as well as the analysis of variance, using a value of $p < 0.05$ as a reference. Once the items of the scale were organised according to the theoretical basis, the Cronbach's Alpha statistic ($\alpha = 0.9434$) was used, indicating a high reliability of the survey. For an agile and dynamic analysis of the results obtained, graphs were prepared for each question and frequency tables referring to each of the answers on the Likert scale used in the survey.

Results

The application of the questionnaire referred to was with the aim of having an approach to find out whether or not there is a behavioural addiction on the part of our students, without a desire to make a study or psychological diagnosis, but rather to have an approach to their opinions on the matter, and above all to find out to what extent they consider that the use of the internet and/or video games is in any way related to or interferes with their academic activity.

The analysis of the data captured in the survey can be seen in graph 1, which shows the behaviour expressed for each question on a Likert scale

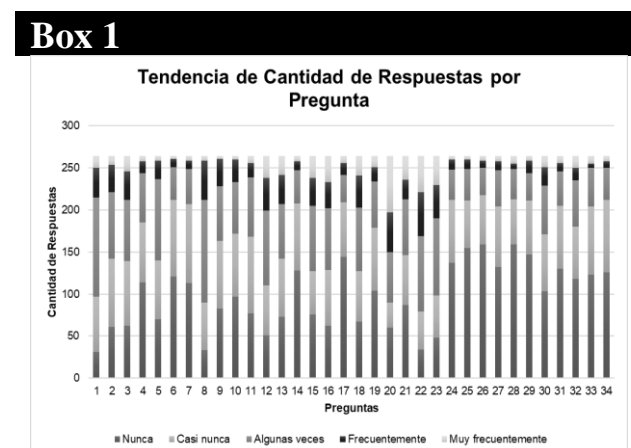


Figure 1

Relationship of the answers given

Source: own elaboration

The number corresponding to the question is shown on the X axis and the number of students who responded on the Y axis, and the trends in terms of the answers obtained on the Likert scale can be observed. Table 1 below shows the number and frequency of answers given for the questions related to Internet use.

Box 2

Table 1

Frequencies of responses obtained on Internet use

Frequency (%)	Never	rarely	Sometimes	Frequently	Very often
1. Do you find it difficult to stop using the internet when you are online?	31 (11.7)	66 (25.0)	118 (44.7)	35 (13.2)	14 (5.3)
2. Even if you want to, can't you disconnect from the internet?	61 (23.1)	81 (30.68)	79 (29.92)	33 (12.5)	10 (3.78)
3. Do your parents or acquaintances tell you that you should use the internet less?	62 (23.4)	77 (29.2)	73 (27.6)	34 (12.8)	18 (6.8)
4. Do you prefer to be on the internet instead of going with your friends?	114 (43.1)	71 (26.89)	59 (22.3)	14 (5.3)	6 (2.2)
Do you sleep less or too little because you are connected to the internet?	70 (26.5)	70 (26.5)	94 (35.6)	22 (8.3)	5 (1.9)
6. Are you thinking about the internet, even if you are not online?	121 (45.8)	91 (34.4)	39 (14.7)	10 (3.8)	3 (1.1)
7. Are you looking forward to your next Internet session?	113 (42.8)	94 (35.6)	42 (15.9)	10 (3.78)	5 (1.9)
8. Do you think you should use the Internet less often?	33 (12.5)	57 (21.5)	122 (46.2)	47 (17.8)	5 (1.8)
9. Have you tried unsuccessfully to spend less time on the Internet?	83 (31.43)	80 (30.3)	65 (24.6)	33 (12.5)	3 (1.1)
10. Have you rushed to work (at home) to connect to the Internet?	97 (36.7)	75 (28.4)	61 (23.1)	27 (10.2)	4 (1.51)
11. Do you neglect your school or family obligations because you are online?	77 (29.2)	91 (34.4)	71 (26.7)	17 (6.4)	8 (3.0)
12. Do you go online when you feel depressed?	51 (19.3)	59 (22.3)	89 (33.7)	39 (14.7)	26 (9.8)
13. Do you use the Internet to escape your sorrows or to relieve your negative feelings?	73 (27.6)	69 (26.1)	65 (24.6)	35 (13.2)	22 (8.3)
14. Do you feel annoyed, restless, grumpy if you can't use the internet?	128 (48.5)	80 (30.3)	39 (14.77)	11 (4.2)	6 (2.2)

To analyse them, they can be grouped by categories in A) Time issues, questions 2,3,6,7,9,16,18 and 19 apply; B) Interferences with the environment and socially, questions 1, 4,17,20,25,27,28 and 30 apply; C) Relationship with affective problems or time, questions 5,10,12,13,14,21,22,23,26 apply; and D) Academic issues: 11, 31 and 34 apply. The tests of significant differences were applied independently of these categories, since in general all the questions were posed with the same objective in mind.

Concerning the use of the Internet and how it affects them as students (Questions 1 to 14), Fisher's F tests were carried out to see if the differences between the answers obtained in the different aspects evaluated were significant; no significant differences were found between each question and the options on the Likert scale, in questions 3, 4, 7, 10, 12, 13 and 14 in the options 'never' and 'almost never', in this group the need or sensations that the individual feels when using the Internet were always questioned and the answers indicated that they do not require its use; in questions 5, 8, 9, and 14 the answers to 'frequently' and 'very frequently' do not show significant differences either.

Analysing the answers in Table 1 and applying the respective analysis to questions 4, 6, 7, 10 and 14 show a significant difference between the answers 'never' and 'very often', i.e. the ideas referred to by the students that the internet is an imperative need for its use are very clearly defined, only the answer to question 4 applies to 70.07% of the answers to question 4 showed that they preferred to be with their friends rather than using the Internet (see Table 1 in Box 2), which is interesting because it is a strong indication of an assessment of addictive behaviour.

The other answers indicate that Internet use is not a priority in their activities, in question 6, there were 80.3% of answers, in question 7 there were 78.4%, for question 10 they answered 65.15% and 78.79% answered 'never' or 'almost never' together.

Of this first block of questions, only question 11 (see table 1) asks about the relationship between internet use and neglecting school or family obligations, in which approximately 27% (71 students) answered 'sometimes', and 6.4% (17) and 3.03% (8) opted for 'frequently' and 'very frequently', which is questionable because even in a small proportion, there are students who neglect their school activities to use the internet for different reasons; In questions 1, 2, 8 and 9 referring to the frequency of internet use, the answers ranged between 13 and 19% to 'frequently' and 'very frequently', which can be interpreted that less than a fifth of the students consider that they use the internet in some way to a high degree, but do not recognise this as a factor affecting their school condition.

Box 3

Table 2

Frequencies of responses to the use of video games (questions 15 to 30) and responses related to their academic activity (31 to 34)

Frequency Question (%)	Never	rarely	Some times	Frequently	Very often
15. Have you ever thought about playing a video game all day?	76 (28.7)	51 (19.3)	78 (29.5)	33 (12.5)	26 (9.8)
16. Have you spent much of your free time playing video games?	62 (23.4)	67 (25.3)	73 (27.6)	31 (11.7)	31 (11.7)
17. Have you ever felt dependent on a video game?	144 (54.5)	65 (24.6)	33 (12.5)	14 (5.3)	8 (3.0)
18. Did you play longer than planned?	67 (25.3)	60 (22.7)	76 (28.8)	38 (14.4)	23 (8.7)
19. Have you increased the amount of time you spend playing video games?	104 (39.3)	75 (28.4)	55 (20.8)	17 (6.4)	13 (4.9)
20. Have you been able to suspend once you start playing?	60 (22.7)	30 (11.3)	60 (22.7)	47 (17.8)	67 (25.3)
21. Have you ever played games to forget some things in real life?	87 (32.9)	59 (22.3)	67 (25.3)	23 (8.7)	28 (10.6)
22. Have you ever played to relieve stress?	34 (12.8)	45 (17.04)	90 (34.1)	52 (19.7)	43 (16.3)
23. Have you played to make yourself feel better?	48 (18.2)	50 (18.9)	92 (34.8)	40 (15.1)	34 (12.8)
24. Have you ever felt bad when you couldn't play for some reason?	137 (51.9)	75 (28.4)	36 (13.6)	12 (4.5)	4 (1.5)
25. Have you ever felt angry when for some reason you have not been able to play?	155 (58.7)	56 (21.2)	38 (14.4)	11 (4.2)	4 (1.5)
26. Have you felt stressed when for some reason you have not been able to play?	159 (60.2)	59 (22.3)	32 (12.1)	9 (3.4)	5 (1.9)
27. Have you had arguments with any people (e.g. family, friends) about the time you spend playing video games?	132 (50.0)	72 (27.2)	43 (16.3)	11 (4.2)	6 (2.3)
28. Have you ever been isolated by others (e.g. family, friends) because you were playing video games?	159 (60.2)	54 (20.5)	36 (13.6)	6 (2.3)	9 (3.4)
29. Have you lied about the time spent on games?	147 (55.7)	64 (24.2)	33 (12.5)	15 (5.7)	5 (1.9)
30. Has your sleep time been affected by video games?	103 (39.0)	68 (25.7)	58 (21.9)	22 (8.3)	13 (4.9)
31. Have you stopped doing any other important activities (e.g. school, work, sport) because you played video games?	130 (49.2)	75 (28.4)	41 (15.5)	10 (3.8)	8 (3.0)
32. Have you ever felt bad about playing video games for too long?	118 (44.7)	62 (23.5)	55 (20.8)	15 (5.7)	14 (5.3)
33. Your video game activity interferes with your academic activities (doing homework, meeting for internship reports, etc.).	123 (46.6)	81 (30.7)	46 (17.4)	5 (1.9)	9 (3.4)
34. Your video game activity interferes with your educational activity (studying for exams, revising, problem solving, etc.).	126 (47.7)	86 (32.6)	38 (14.4)	8 (3.0)	6 (2.3)

Similarly, some of the representative questions on this topic in the survey are annexed, again not all the graphs were not included for reasons of space; the discussion of results explains the respective answers.

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Of the answers obtained in relation to the use of video games, there were no significant differences in the answers to questions 16 and 18 (see Table 2), showing that interest in video games is very varied in terms of frequency of use. In contrast, there were significant differences between the options 'almost never' and 'sometimes' in answers 20,22,24,25,26,27,28,29,30,31 and 34, (see Table 2 in box 3), which could suggest that there is a certain degree of concern in terms of being able to suspend a game, in showing a certain degree of pleasure when playing video games, in having family conflicts because of this activity, and something important regarding their academic activity, especially because more than 10% declared that 'sometimes' they do not fulfil their academic activities, which also applies to the options 'sometimes' and 'frequently' obtained in 21,24 and 34. There were no significant differences in the options 'frequently' and 'very frequently' in the responses to items 17, 19, 21, 22, 23, 25, 26, 27, 28, 29, 30 and 31, in most of these responses, the lowest frequencies of the questionnaire were found, the first 3 referring to pleasure or satisfaction when using video games, to which the majority responded with 'never', 'almost never' or 'sometimes', thus expressing that they do not feel a definite satisfaction with the use of video games, and the following 3 about feelings of abstinence from their use; The following 3 were about feelings of abstinence from video games; they also stated that they do not play because they feel stressed, or that they do not get upset or affected when they cannot play them, and finally the last ones about the problems caused by video games.

In the case of the questioning on the use of video games, there were significant differences in the answers given to questions 17, 19 and 24 onwards (see Table 2), marking a relevant disparity between the answer 'never' and 'very frequently', highlighting the non-dependence on the use of video games; questions 24, 25 and 26 refer to feeling some kind of feeling of anger or irritability at the stress of not being able to use video games, the majority answered never, and less than 2% stated that very frequently. Concern about not being able to meet basic needs can contribute to feelings of anger, and in this case, opinions about not being dependent on video games are further emphasised, with approximately 80% responding 'never' and 'hardly ever'.

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Questions 27 and 28 ask about the problematic relationship or conflict that could exist between the student and his/her family due to excessive video game use, and again a high percentage of students answered in the negative (approx. 80%, more than 200 students).

As a response to the surveys applied, it can be established that 80% of the users consulted gave a score between almost never and never to the questions that relate the use of the Internet and video games with educational activity, i.e. they recognise that the fact that they are frequently using these technologies does not represent a tendency towards behavioural addiction, nor that their academic activities may be affected by these activities, however, more than 21% responded that they frequently or very frequently use these communication systems excessively.

Conclusions

Technologies are useful if used in moderation, as they allow for interconnection, rapid information, obtaining various products or actions, facilitating tasks, the possibility of expressing oneself, relating to others, etc.

The diagnostic criteria for pathological use of the Internet and video games are very varied (Shapira et al., 2003; Ko et al., 2005; Beranuy et al., 2009) and some show greater consistency in the 8 criteria: 1. 3. Has made repeated unsuccessful efforts to control, decrease or stop Internet use. 4. 4. felt restless, moody, depressed or irritable in attempts to stop or stop using the Internet. 5. You have spent more time on the Internet than you intended to. 6. You have been at risk of losing an important relationship, job or educational opportunity because of the Internet. 7. You have lied to family members, your therapist or others to hide the important relationship with the Internet. 8. Uses the Internet as a way to escape from problems or to alleviate an upset (feelings of helplessness, anxiety, depression or guilt), with some agreeing that, for a diagnosis, the person must meet at least 5 of them, which is not clearly defined in the students interviewed, it is to be considered that in various studies on addictive disorders there is often a denial of dependence.

This is due to the fact that this behaviour demonstrates a pleasure or personal satisfaction that is not compatible with many of the interests of the environment and therefore the user prefers not to express it in order to avoid being reprimanded, when doing so the user does not want to express it, especially when this behaviour gives rise to a qualification or criticism, or does not want to make their opinion known because they may be considered as an addict (Echeburúa and Corral, 2010; Echeburúa and Requesens, 2012). It is important to continue asking these questions in order to make students aware of the need to learn more about how they are affected by the use of these technologies.

The effects of this daily activity should also be known, as it will continue, perhaps increasingly in each person, and it is therefore necessary at the level of each individual to establish protocols of conduct that are appropriate for managing time and daily activities.

For addictions to technologies, the main strategy to avoid them is to obtain a behavioural pattern for their use, not only because the new technologies are harmful in themselves, but also because in today's society it is not appropriate or possible to stop using them, which is why the use of healthy routines is the fundamental form of existing prevention.

Declarations

Conflict of interest

The authors declare that they have no conflicts of interest. They have no competing financial interests or known personal relationships that could have influenced the article reported in this paper.

Author contributions

Ortiz-Sánchez, Pedro Alfonso Guadalupe: Contributed to concept development, questionnaire and data processing, drafting and writing the article.

Sanchez-Iturbe, Patricia Guadalupe: Contributed to the generation, drafting and application of the questionnaire, its analysis and the writing of the article.

Article

Ortiz-y-Ojeda, Pedro Tomás: Contributed to the analysis and writing of the article.

Clemente-Camacho, Elferías Isaías: Contributed to the processing of the information.

Availability of data and materials

The data obtained for this research are available in an electronic repository owned by the academic body Didactics and Application of Basic Sciences.

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Abbreviations

AMP	American Psychiatric Association
CIE	International Classification of Diseases
ENDUTIH	National Survey on the Availability and Use of Information Technologies in Households
INEGI	National Institute of Statistics and Geography
TecNm	Tecnológico Nacional de México

References

Background

Echeburúa, E., & de Corral, P. (2010). [Adicción a las nuevas tecnologías y a las redes sociales en jóvenes: un nuevo reto](#). *Adicciones*, 22(2), 91-95.

Echeburúa E y Requesens A. (2012) [Adicción a las redes sociales y nuevas tecnologías en niños y adolescentes, guía para educadores](#). Ediciones Pirámide, ed. Digital, Murcia, España.

Basics

AMP (American Psychiatric Association), (2013). [Diagnostic and statistical manual of mental disorders: DSM-5™](#) (5th ed.). American Psychiatric Publishing, Inc.

INEGI (Instituto Nacional de Estadística y Geografía) (2021) [Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares](#).

Supports

American Psychiatric Association, DSM-5 Task Force. (2013). [Diagnostic and statistical manual of mental disorders: DSM-5™](#) (5th ed.). American Psychiatric Publishing, Inc.

Beranuy Fargues, Marta; Chamarro Luser, Andrés; Graner Jordania, Carla; Carbonell Sánchez, Xavier (2009) [Validación de dos escalas breves para evaluar la adicción a Internet y el abuso de móvil](#). *Psicothema*, vol. 21, núm. 3, pp. 480-485.

INEGI (Instituto Nacional de Estadística y Geografía) (2020) [Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares](#). Instituto federal de telecomunicaciones.

Organización Mundial de la Salud (2018) [Clasificación internacional de enfermedades](#) (10ª ed). OMS.

Shapira NA, Lessig MC, Goldsmith TD, Szabo ST, Lazoritz M, Gold MS, Stein DJ. [Problematic internet use: proposed classification and diagnostic criteria](#). *Depress Anxiety*. 2003;17(4):207-16.

Discussion

Beranuy Fargues, Marta; Chamarro Luser, Andrés; Graner Jordania, Carla; Carbonell Sánchez, Xavier (2009) [Validación de dos escalas breves para evaluar la adicción a Internet y el abuso de móvil](#). *Psicothema*, vol. 21, núm. 3, pp. 480-485.

Ko CH, Yen JY, Chen CC, Chen SH, Yen CF. (2005) Proposed diagnostic criteria of Internet