

Disorders caused by the use and abuse of mobile phones in Spanish students

Abstract

This research gathers data on the impact that information technologies can generate in general, especially in young people, focusing on the detection of genetic disorders of dependence and abuse of these computing devices, especially telephones mobile and analyzing the causes and the reasons that lead to this situation. The investigation has been carried out by means of a questionnaire with closed questions, but it has been included once in which, the people who have the need to have some disorder caused by the need to use the mobile phone: lack of battery, forgetfulness, loss, or other causes. The questionnaire was conducted online, disseminated by the mobile application “WhatsApp”, collecting a sample, real, of 173 subjects.

They address the issues of dependence and feelings arising from the use of mobile phones, most of the samples are for boys and girls under 25, elected and elected for the generations in which we most impact these advances.

The results obtained in our research confirm that a high percentage of the young population of Hamilton suffers dependence or disorders derived from the abusive use of the mobile phone.

Keywords: technologies, youth, disorders, dependence, abuse, WhatsApp, mobile phone

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M^a Cinta Aguaded Gómez, Isaac Melero Márquez, Cristina Martín Vélez
University Huelva España, Spain

Correspondence: M^a Cinta Aguaded Gómez, University Huelva España, avda 3 de marzo s/n 21710, Spain, Tel 0034645766831, Email mariacinta.aguaded@dedu.uhu.es

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Introduction

Currently, the Smartphone has become an essential tool in people's daily lives, generating in many cases, disorders related to their abuse, especially, manifestations related to the anxiety caused by dependence. Already in 1995 Goldberg, in a communication entitled “Internet addiction: The emergence of a new disorder”, presented at a conference held in Toronto, warned of these problems.¹ Today the mobile device is at the head of the most used, forming part of the daily life as a bridge to social networks and connectivity with the rest of the world. New technologies are taking over the current social environment, and although its function is to facilitate the development of daily and labor actions in addition to keeping us connected globally and locally, they are hindering other social and personal areas of people, becoming beings that are more individual but more dependent on the network.

In the same way, we have the most demanded tool, Internet, which has been able to show its usefulness in multiple areas of human activity. From the search for information, in academic or school environments, to scientific, professional, commercial activities, economic transactions, leisure activities or in one's interpersonal relationships.² Therefore, we must take into account the shocking evolution of ICT and in particular the combination of telephone plus internet (smart phones or smartphones). This inappropriate use can cause addiction with the consequences that entail. People sometimes are not aware of not accepting the dependence they have on these devices giving themselves more and more cases in which these subjects lose communication skills in their day to day. The environment that surrounds them and even showing a series of psychological disorders that affect the lives of the most vulnerable users, being dependent on connectivity and the appreciation that other people can show through social networks.

Chóliz,³ thinks that it is a true addiction given that it meets the criteria indicated for its diagnosis: withdrawal syndrome, provocation of personal conflicts, interference with other activities, etc.⁴ What characterizes an addiction is the loss of control and dependence. All addictive behaviors are initially controlled by positive reinforcers-the pleasurable aspect of the behavior itself, but end up being controlled by negative reinforcers-the relief of emotional stress, especially.⁵

The new cell phones “Smartphone” provide technical support to a modality of fusional link. The users use them all the time, as a kind of prosthesis, they use them in class, before and during the screening of a film, until the moment they start their psychotherapeutic session, sometimes they also watch the screen in the course of it when a message comes in. The use of cell phones has a particular relationship with the use of time since it is not necessary to wait to talk with others; it is possible to be connected, instantly, 24 hours a day, every day of the year, from anywhere. Virtual communication also allows for no pauses, intervals or delays, which sometimes generates certain negative effects.⁶

Generally, the use of the Smartphone does not usually related to a benefit or material reward; on the contrary, the activity carries out for the pleasure or interest of using it. You can say that a Smartphone is a mobile phone that allows you to carry out actions of a PDA, beyond voice calls and SMS. The computing power of a Smartphone is comparable to that of a desktop or laptop computer. The first Smartphone in history was the IBM Simon. Manufactured in 1992 and distributed by the USA, between August of 1994 and February of 1995, it had a price of 899 dollars. The first Smartphone combined functions of personal digital assistant (PDA) with camera and GPS navigator, in addition it had predictive text, calendar, functions of SMS, electronic mail, search (beeper), fax and a modem for connection to Internet, these Functions were more common for a PDA

than for a cell phone of the time. It showed a QWERTY keyboard on screen from which standard or predictive text could enter.

Now they include internet connection via WIFI or mobile network for web browsing, video calls, viewing of email (E-Mail), player etc. Although previously in 1973 appears the first mobile created by Martin Cooper, have been producing significant changes in design, technology and use. Such changes have progressively modified the way in which the human being relates to mobile technology.⁷ It is most current transformation is the Smartphone, a mobile phone that has integrated applications and Internet access, so it is distinguished from standard mobile phones in its operating system and equipment, with advanced features such as 3G or 4G. They also offer multiple possibilities, such as instant messaging, access to email, navigation, cameras, video, etc., resembling a mobile personal computer, so it attracts a large number of users. All this allows the person to be located at any time and attentive to the different contents offered by multimedia etc.^{8,9}

They are classified from the lowest or basic to the highest or flagship in groups called “ranges”, cell phones that are in the same ranges have the same or similar specifications (Camera, RAM, internal memory, processor, etc.)

According to their classification: what they have inside, how they look and what they are capable of doing. Also with relation quality-price. There are three main ranges:

- a. Low range
- b. Middle range
- c. High range

Each market or sector has a preferred range, meaning that in certain countries, they prefer to buy mid-range smartphones rather than buy high-end smartphones, and this is mainly due to the costs of the smartphones.¹⁰ The motivations that induce young people to use the Smartphone are very varied, although we emphasize that this type of devices have some very special characteristics that make them highly sensitive to provoke problematic or addictive behaviors.

We understand problematic use that presents patterns very similar to those who are in addictive behaviours.¹¹ The characteristics that can cause this type of behavior contain fundamentally on two variables, according to Cuesta & Gaspar¹²:

- a. Transport very comfortable and in continuous use disposition.
- b. Instant internet connection, very easy to access and fast at the “flat rate” price. A very affordable price has made a large number of young people currently have this type of rate.¹²

According to a study conducted by Ericsson ConsumerLab,¹³ in countries such as Russia, India and Brazil, with a sample of subjects who were between fifteen and fifty-four years old. They have accessed the internet at least once a week: 69% of people, who use this type of equipment, connect to the internet every day (40% in the morning and 50% at night) through applications. While 20%, use high-volume programs in audiovisual content such as videos, television, maps, among others. These are not the only uses, at least 49% of people use social networking applications, 39% use chat, 31% those programs that say the temperature, 26% look for news with their cell phones, and 20% see maps or GPS and 12% information about the streets. According to this study, what is important for Smartphone consumers

is the practical utility that these tools and services can have in their daily lives. Its use even depends on the area in which people are located.

In India, for example, there is a greater interest in personalizing equipment with different wallpaper or icons. In Russia, on the other hand, the practical usefulness of the programs prevails over other things with maps and news. Countries like Brazil stand out, especially, for the use of social networks. Jasmeet Singh Sethi, senior specialist of the company, talks about this trend. “Applications are now not just for those who know more, but more mature users (or with more time of use) are what most programs use.

On the other hand, those who buy smartphones for the first time now go in search of software that is more specialized. “This is a market that has not stopped growing worldwide. Global mobile subscriptions reached 6,300 million in the second quarter of this year where at least 140 million of them are new in the corresponding quarter.

In addition, this trend is expected to continue with the arrival of more and more new phones that will also translate into a more explosive and important share of the applications. Although in the same way, the use of the Smartphone entails a series of reinforcements, which increases largely the probability of continuing to use it, such as the ease of being. In several places at the same time, feeling close to people who are far away, ability to produce answers to doubts and greater personal satisfaction. As a result, the use of various applications for day to day, games and the increased sense of self-esteem, as well as sense of mastery, sharing experiences with other people, either through social networks, of game or others, creation of interpersonal patterns, etc.

WhatsApp is an application that has become a part of the mobile device. It is the most used application today. But what is WhatsApp?

It is a chat application for latest generation mobile phones, the so-called Smartphone. It allows the sending of text messages through its users. Its operation is identical to that of the most common instant messaging programs for computers. The identification of each user is their mobile phone number. This social network has overturned our lives, leaving behind the classic methods of how human beings organize and deal with each other, facilitating the transfer of files of all kinds, a strong encouragement to communicate on the move or be purely sedentary. For all this we questioned are the subjects aware of their dependence on mobile? Are disorders arising from this abuse appearing in your behaviors? Could these disorders and their consequences be codified? Are there differences in the different population strata? Is there more incidence in some places than in others? Does the factor sex and age influence? These questions guided the research approach.

Methodology

Once the research questions have been formulated, the general and specific objectives that would guide the study will be outlined.

General objectives

Check if the abuse of the mobile phone affects people causing disorders and dependence.

Specific objectives

- a. Find out the use of the mobile phone in the population studied

- b. To investigate how the use of mobile phones affects the young population emotionally.
- c. Detect the percentage of young people who are aware of their addiction.
- d. Detect the social behavior derived from the abuse of the mobile phone.
- e. Compare differences and similarities between population strata and age

Once the objectives have formulated, the hypothesis is put forward in these terms: "The abuse of the Smartphone, in the short or medium term, can cause disorders or pathologies."

Based on a quantitative research method, in order to complete an organized, rigorous, disciplined and reflexive action, a descriptive methodology has been used to collect disorders caused by the abuse of mobile telephony in a certain group of subjects configure the sample. The instrument used to achieve our objective is that of the survey. The author, based on the objectives of the study, has prepared this survey. It consists of 17 items.

It has put at the service of the participants and the participants thanks to the computer development, using software. Something that ensures the obtaining of representative samples. The participant sample of voluntary non-probabilistic character consisted of 173 subjects with ages between 15 and 50. It should note that more than 85% of the individuals were between the ages of 15 and 25, of which 80% are students. Being a survey, in which the instrumentation has been the distribution through mobile devices, through the WhatsApp application, it is found that the people surveyed are from different

cities although in most part it is from the Andalusian population in particular, Huelva.

Presentation of results

The results obtained from the survey of 173 subjects, 31.5% were men, while 68.5% of women show that: Figure 1. Regarding age, we found 86.3% participation in ages between 15 and 25 years, 11% participation between 26 and 35 years, a 2.7% participation in ages between 36, 50, and 0% in ages between 51 and more (Figure 2). Regarding employment, 80.8% of the participants are students, 12.3% of the participants are workers, 6.8% are unemployed and 0% of the participants are in retirement (Figure 3).

Preference in the use of technological material we found a 21.9% of participants prefer to use the computer. As for tablets, the result is 0% and mobile 78.1% and television 0% (Figure 4). Regarding the use, we see that 12.3% of the participants make them an informative use, 50.7% use it to communicate and 37% playfully (Figure 5). If they have mobile phone addiction: yes 46.6%, not 42.5% not replies 11% (Figure 6).

Regarding the hours of use (per day), 1.4% of the participants consider that they use the mobile less than 1 hour a day. In addition, 12.3% use the mobile between 1 and 2 hours a day, 12.3% of the participants consider that they use the mobile phone with a minimum of 3 hours a day and 74% consider that it uses the mobile phone more than 3 hours (Figure 7). The time I dedicate to my mobile prevents me from doing important things, in disagreement 20.5%, somewhat in disagreement 26%, neither agree nor disagree 9.6%, somewhat agree 31.5%, and totally agree 12.3% (Figure 8).

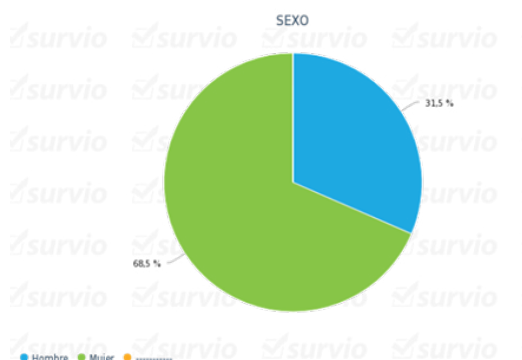


Figure 1 SEXO.

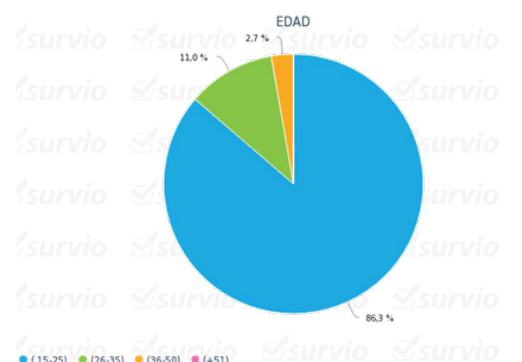


Figure 2 EDAD.

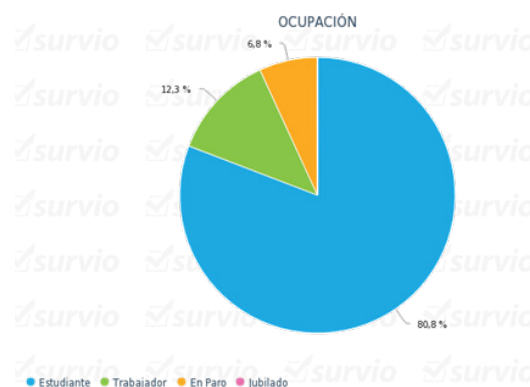


Figure 3 Occupation.

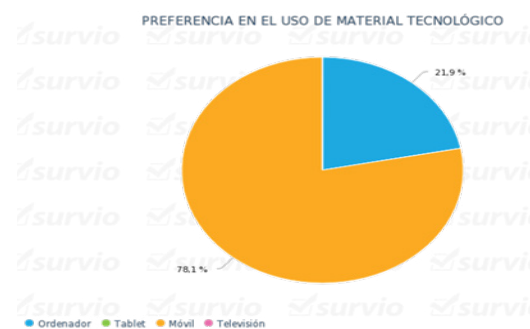


Figure 4 Preference in the use of technological material.

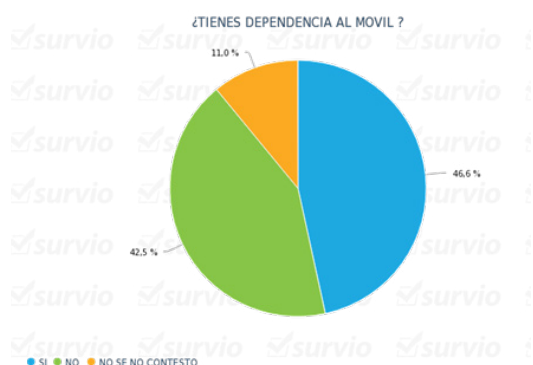


Figure 5 USO.

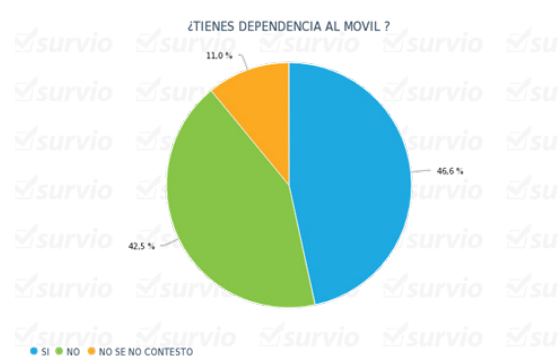


Figure 6 If they have mobile phone addiction.

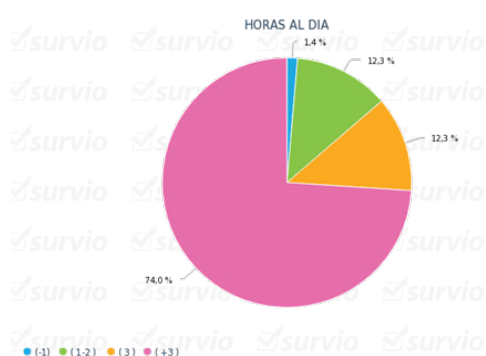


Figure 7 Regarding the hours of use (per day).

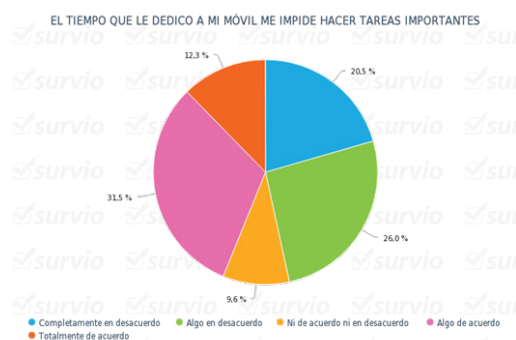


Figure 8 The time I dedicate to my mobile prevents me from doing important things.

I have ignored the people I was with to focus on my mobile phone:

- a. Disagree 20.5%, somewhat disagree 20.5%, neither agree nor disagree 15.1%, some agree 42.5% and agree 1.4% (Figure 9).

With regard to the use of mobile, (choose the most appropriate for you): (Figure 10)

- a. Emotionally it would be very difficult for me to give up my mobile, 8.2%.

- b. The time I spend on my mobile prevents me from doing important things, 39.7%.
- c. I consider I spend too much time using my mobile 39.7%.
- d. It does not cause me any problems 38.4%.

I need to use the mobile longer to be satisfied, in disagreement they present 35.6%, somewhat disagree 28.8%, neither agree nor disagree 20.5%, somewhat agree 12.3% and totally agree 2.7% (Figure 11).

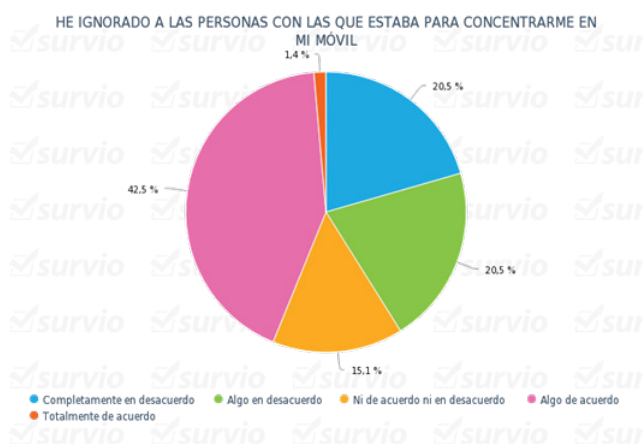


Figure 9 I have ignored the people I was with to focus on my mobile phone.

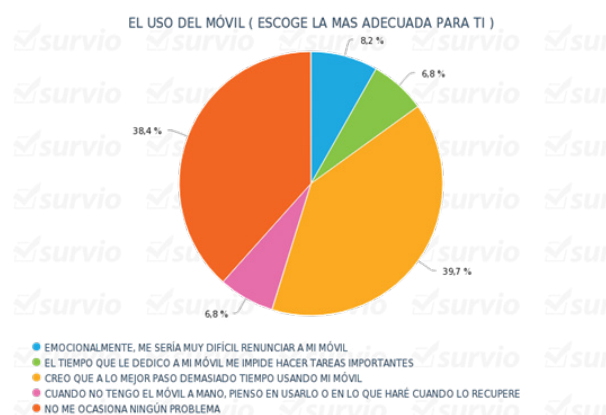


Figure 10 With regard to the use of mobile, (choose the most appropriate for you).

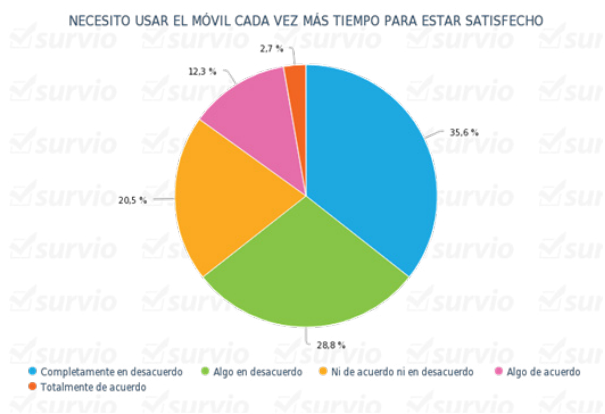


Figure 11 I need to use the mobile longer to be satisfied.

“If I do not use the technological material, it causes me”: (Figure 12)

- Anxiety 20.5%.
- Solitude 8.2%.
- Rest 71.2%.

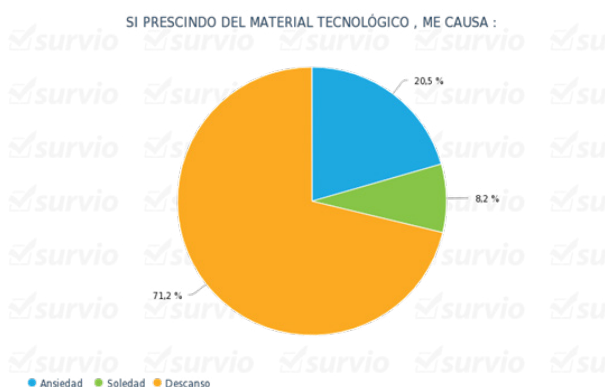


Figure 12 If I do not use the technological material, it causes me.

I get nervous if I do not get a message or a call when I wait for it: disagree 17.8%, somewhat disagree 16.4%, neither agree nor disagree 19.2%, somewhat agree 35.6% and totally agree 11% (Figure 13).

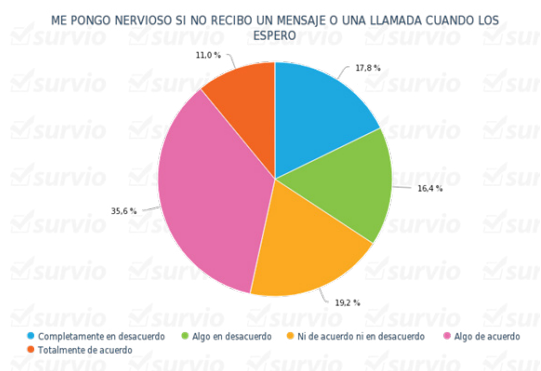


Figure 13 I get nervous if I do not get a message or a call when I wait for it.

I used the phone at a time that was dangerous: completely disagree 19.2% somewhat disagree 12.3%, neither agree nor disagree 12.3%, somewhat agree 28.8% and totally agree 27.4% (Figure 14).

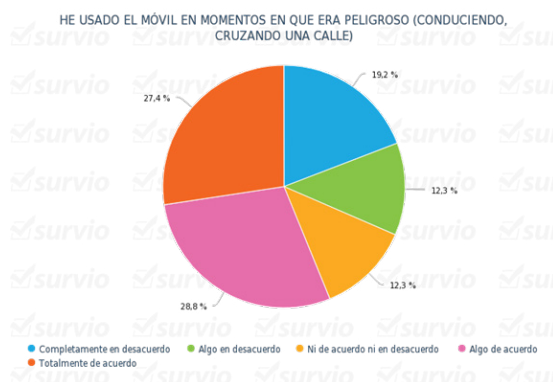


Figure 14 I used the phone at a time that was dangerous.

Sometimes I feel the mobile vibrates: disagree 30.1%, somewhat disagree 13.7%, neither agree nor disagree 6.8% agree 27.4% and agree 21.9% (Figure 15). Once the results have analyzed, we conclude that our hypothesis is confirmed, since after a thorough breakdown of these we have detected a high percentage of the participating population that is in a situation of dependency, due to either social behaviors or disorders derived from the abuse of the same.

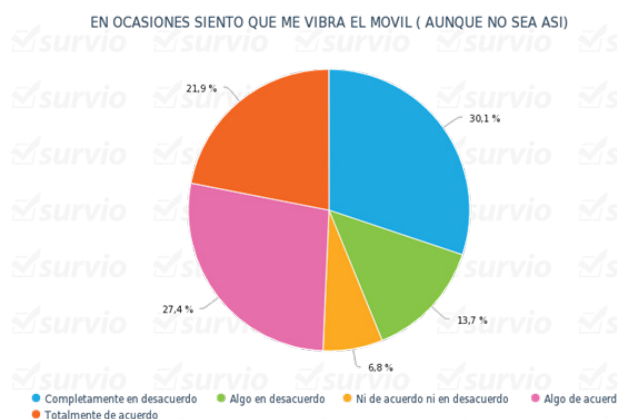


Figure 15 Sometimes I feel the mobile vibrates.

Conclusion

Once analyzed the results of the research, concludes that the highest percentage of responses in terms of sex are found in the feminine (women), on the other hand with respect to age we observe that we have obtained a majority response of young people among the 15 -25 years, and as for the occupation of these, predominates being a student. On the other hand, the index of demarcation of participation with respect to the population with greater weight is the Province of Huelva, although we must say that it had participants from different parts of the country.

Regarding the preference for the use of technological material par excellence, it is the Smartphone before any other medium: television has a low presence and affect within the young population. The use

of mobile throughout the day takes more than three hours, especially giving it a communicative importance. Its use entails a high index of stress and fatigue and to do without it describes as rest but also anxiety or loneliness.

Throughout the investigation inconsistencies have detected when affirming one or the other answer, most of them emotionally indicate that to stop using the Smartphone does not pose any problem. Nevertheless, in other aspects or issues, they indicate that the use of the mobile phone it prevents us from doing things that are more important with a majority percentage of 35.6. Confirming that we do not need to use our cell phone any longer to be satisfied. However if we add the answers: “The time I spend on my mobile device prevents me from doing important things.” I think maybe I spend too much time on my mobile”, “Emotionally it would be very difficult for me to give up mobile”, “When I do not have my mobile phone at hand, I think about using it or what I will do when I recover it”. Therefore, indicates a result 94.4%, are dependent or suffering from some disorder caused by the abuse of the mobile in one or the other measure.

A percentage of 35.6%, agree, in the statement: “I get nervous if I do not receive a message or a call when I wait for it”, and a 42.5 mostly affirmed to find some agreement, to the statement: “I have ignored the people I was with to focus on my mobile phone.” It is necessary that the subject.

As a final contribution concludes, the use of mobile research subjects is more than three hours a day. They seem not to recognize that the mobile is part of their lives and therefore can do without it. Nevertheless, there are inconsistencies with these results when they think that it takes them time to do other things, that they spend too much time with him and that when they do not have it, they think about what to do with it when they recover it. The answer of I am dependent on the mobile phone in 46.6% is superior to the one I am not, 42.5%. This means that the use and time we use the mobile phone is excessive and that not having it or dispensing with it is almost impossible. The indications of disorders that derive from their absence are:

- a. Anxiety 40%.
- b. Sensation of being disconnected 60%.
- c. Loneliness, I do not belong to the group 53%.
- d. Tachycardia and bad mood 36%.
- e. Irritability 70%.
- f. Others 10%.

Analyzed these factors, we contribute that dispensing with the mobile in this society guided by media communication causes emotional and personal imbalance manifested in anxiety, feeling of being disconnected and alone, causing moodiness and irritability sometimes linked to tachycardia and physiological symptoms. Therefore, it is necessary that the subject becomes aware of the emotions derived from this use and builds a critical reflection.^{14,15}

Limitations

Regarding the limitations that have presented to us, indicate the number of subjects, the actual sample obtained is a limited number. On the other hand, to say that only one of the instruments has been used, the online questionnaire, which has provided results of a varied

population among ages, although the one with the greatest weight is of people between the ages of 15-25. However, other instruments such as the interview or discussion groups could have used to contrast the data collected.

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Conflict of interest

The author declares there is no conflict of interest.

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