Mobile phone-dependance among university students from Isfahan (Iran) and Malaga (Spain)

Javier Barquín Ruiz

Associate profesor. Faculty of Education. Malaga University. Spain.

Email:barquin@uma.es

Azam Naghavi

Assistant professor. Department of Counseling, Faculty of Education and Psychology. University of Isfahan. Iran.

Email: az.naghavi@edu.ui.ac.ir (Corresponding author)

ABSTRACT

The work presents a comparative analysis of mobile phone use by university students from two universities, a group from Isfahan (Iran) and another from Málaga (Spain). To do this, two groups of young people (90 students from the University of Isfahan and 108 students from the University of Málaga) responded to an online survey translated to Farsi. which analyzed several items. The data indicated that the presence and use of mobile phone is very widespread among the young population. Nine students out of ten keep the mobile on forever. Although differences are observed in the use of applications, times, in the case of the students of Isfahan it seems to be used more frequently in almost all sections (social networks, informal chat, photographs, etc.) than its equals of Spain. The results confirm the strong implantation of the mobile phone in the social life of young people but not so much as an academic or professional resource of the same.

Keyword: Mobile phone use, Cyber-dependande, University students, Comparative study

1

INTRODUCTION

Recently, the phenomenon of behavioral addiction such as excessive mobile phone use and its corresponding impacts has sparked a long-running dispute. Behavioral addiction can be defined as "irresistible urge, impulse or drive to repeatedly engage in an activitiy (non-substance use) and an inability to reduce or cease this behavior, (loss of control) despite serious negative consequences to the person's physical, mental and /or financial well being" (World Health Organization, 2014:5). Does this problem needs treatment and rehabilitation? There is still an on-going debate about behavioral addiction's diagnosis criteria and the most recent edition of the diagnostic manual DSM 5 (American Ppsycological Association, 2013) suggests that this issue may be included in the manual in the future if future research shows that behavioral addiction may lead to a clinically significant impairment.

According to Pedrero Rodríguez Monje and Ruiz Sánchez de León (2012), there is no consensus to define mobile addiction. When variables related to socialization have been studied, the results are conflicting. If for some authors the mobile is an instrument that facilitates the creation and maintenance of social networks, increasing social capital, for others its use enhances isolation and feelings of solitude. It is possible that the current boom in mobiles and their capacity to increase their use in the population (especially the most vulnerable groups) are the product of a specific moment of technological development and market dynamics. Some authors suggest that we face the "addiction of the 21st Century" (Shambare, Rugimbana, & Zhowa, 2012). But it is also possible that it is a real revolution in the processes of interpersonal communication, for which the previous paradigms lack of explanatory capacity.

In previous research in the early 2000s (Valor, 2004) with university students there are no problems with the use of the cellphone or addiction, something that seems to have changed in recent years with the new communication and the expansion of digital contact modes among young people.

However, more detailed studies with the variable gender indicate substantial differences (Choliz, 2009; Nasrallahi, Shahsavari, Salehi, Abedi, Sadeghi, Hayati-Neia & Siyari, 2015; Yassimi-Nejad, Golmohammadian & Yousefi. 2012; Pourrazavi,

Allah-Verdipour & Ghotchian 2012), so women use it to be more in touch with their friends, families and males for games and entertainment in general.

A report on European countries (2012) already indicates addictive Internet behaviors (CAI) or a pattern of behavior characterized by loss of control over Internet use. This behavior potentially leads to the isolation and neglect of social relationships, academic activities, recreational activities, health and personal hygiene.

Consumers now show more dependency for their smartphones: 40% of people look at the screen of their phones more than 50 times a day while 70% use their phone in the first half hour after waking up. Young people are still more "wired" than older people, 95% of them have a smartphone.

According to a study by the Protegeles center (2014), the access to Information and Communication Technologies (ICT) is taking place at younger ages. 30% of Spanish 10 year olds have a mobile phones. When they turn 12, almost 70% of them own one, 83% of 14 year old teens use their smartphones. The use of these technologies is actually showing at younger ages, children from 2 to 3 years access their parent's terminals regularly, using different apps as games, coloring apps and cartoon TV channels.

As reported by the INE 2017 (Spain's National Institute of Statistics) children from 10 to 15 years tend to use Information and Communication Technologies more and more. 92,4% of them use the computer, 95,1% of them use the Internet and 69,1% of them use mobile phones.

In respect of mobile phones, 25% of 10 year olds use them although 45,2% of 11 year olds use them, when they are 12 75%, at 13 years 83,2%, at 14 years 92,8% and at 15 years 94% use mobile phones. Since there are 14, 9 of 10 kids have a phone. These pieces of information indicate that these devices are present always and from a very young age in every teen and adult life.

Results in other part of the world show similar trend. Irainian stude have asserted that almost all university students use mobile phone and in some research it has been found that some level of behavioral addiction in this community are visible. Some reserachers alarmed the country about the negative consequences of exessive mobile phone use such as feeling of loneliness, depression and anxiety. The majority of students use their mobile phone for general purpose rather than academic activities.

(Yahyazadeh, Fallahi-Khoshknab; Zafari, Karamdoust, Zare, 2014). Khazaee and colleagues (2014) asserted that mobile dependence is a serious problem and has a negative correlation with university students' self-esteem and they suggested that screening students with low self-esteem would create opportunity to help them in preventing problematic mobile phone use. Using mobile phone and the Internet may change the sense of identity among youth. (Navabakhsh, Hashempour & Zad sham pour, 2010).

As mentioned above, including behavioral addiction such as cyber-addiction or mobile phone addiction needs more research both on the patterns of these behaviors and on their corresponding impacts. Therefore, the aim of this research was to compare mobile use patterns of university students in Iran (university of Isfahan) and Spain (Malaga university).

METHOD

The study was a cross-sectional, cross-cultural survey and started after an initial contact held in March 2017 in a visit to the Faculty of Education and psychology of Isfahan. For several academic courses my students from the Faculty of Education answered a brief survey online about the use of mobile phone. The survey was structured in several sections with 31 semi-open questions.

To compare how the students from Malaga and Isfahan use their phones, the original survey was translated and adapted to Farsi and a group of students from the Faculty of Education and psychology were invited to respond. Subsequently the data were transferred to a database to analyze them with the statistical software.

In this work we presented some of the answers of several items related to the general use and to the use in the academic work of the university. The two samples correspond to students enrolled in the 2016/17 academic year. From the university of Isfahan 90 students and from the university of Malaga 118 students participated in the survey, the majority of them were female students (figure 1). The result presented in this paper is part of the result that have been found.

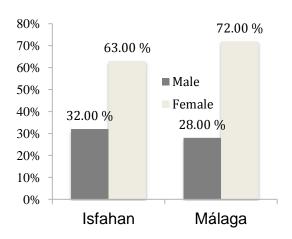


Figure 1: Participants' gender

RESULTS

General and specific use of the mobile (time, applications, etc.)

One common element to be treated in this topic is some habits in the use of the cell phone such as in relation to having the phone off (figure 2). Virtually nine out of ten students never turn their mobile phone off and, depending of the cases, the cell phone could be "on" 24 hours.

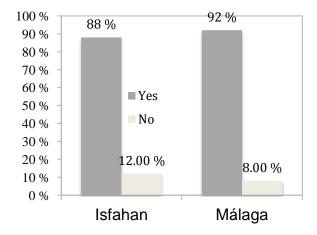


Figure 2: My cell phone is always on

The other general habits is in which places or times the students would turn their mobile phone off. The responses are listed in table 1.

Table1: When you turn off your cell phone?

	I never	I turn it	I turn it off	I turn it off in	I turn it off
	delete it	off in	when I study	places not	when I
		class		allowed	sleep
Isfahan	37,66%	1,30%	,00%	40,26%	20,78%
Málaga	44,04%	,00%	11,93%	29,36%	14,68%
Total	41,40%	,54%	6,99%	33,87%	17,20%

Other differences between the two groups correspond to internet access. Table 2 shows how do students access the Internet. It seems that due to a greater extension of the networks and the offer in data and voice of the communications companies, the Malaga group access through its network of data and less of other networks or places. In turn it can also indicate a greater availability for telephone expenses that parents generally assume within the plans of the operators that include television, internet, etc. The purchase in the section of "communication" is done for the whole family and under that formula the operators compete to gain market share. In some cases, in Spain it is cheaper to subscribe to a package (telephone, television and internet), than to hire a single service.

Table 2: Point to where you access the Internet mainly

Students	Through a Wi-Fi center / school / other	Through my data plan	I connect where I find free Wifis	Other options
Isfahan	50.65%	40.26%	1.30%	7.79%
Málaga	31.53%	60.36%	3.60%	4.50%
Total	39.36%	52.13%	2.66%	5.85%

Time of using a mobile phone on social netwrok media such as whatsapp, instagram and etc

	I never use this	Less than 1	Between 1 and	More than 3
	type of	hour per day	3 hours a day	hours a day
	applications			
Isfahan	1,27%	,00%	45,57%	53,16%
Málaga	,00%	4,59%	37,61%	57,80%
Total	,53%	2,66%	40,96%	55,85%

Table 3: Time spending on social network applications

Table 3 shows the amount of time students usually spend online. As it is indicated in the table, the majority of students use their mobile phone in social networks between one to three hours or more than three hours.

Using mobile phone for academic purpose

When you ask students if they use their smartphone to assist their studies, answers are not very different from each other. Some representative answers are as follow:

"I search for information."

"I search web pages where I can find the information I need."

"I usually use it to search for the meaning of words I don't know."

"I use it to look over my emails from the university and to access the campus."

"I use it when I need to find some information like: synonyms, word meanings..."

The majority of the answers are about "searching" and "information". In fact almost half of the students pointed out those terms. Others show interest for specific terms and word meanings and to a lesser extent the access to email and the virtual campus is indicated.

General purpose of mobile phone use

	Isfahan	Málaga	Chi-cuadrado Pearson
Make calls	↑		.000
Receive calls	↑		.000
Download games		1	.000
Download music	↑		.000
Download photos and videos	1		.000
Post photos on Facebook, internet, etc.	1		.000
Play with mobile / mobile games	*	*	.110
Check email		1	.000
Take photos Record videos	1		.000
Listen to music	↑		.000
Internet access	↑		.000
Participate in social networks (Facebook, etc	1		.000

Table 5: Spending time on mobile phone, differences between Isfahan and Malaga

Table 5 shows how in most of the activities the group of Isfahan students spends more time than their counterparts in Malaga. The symbol " \uparrow " indicates significant differences due to greater use.

CONCLUSION

The time spent on social networking is a symptom of an addiction on the part of young people?

Differences between students indicate that Isfahan's group is more respectful of the rules and turn off their mobile phone in non-permitted places. However, the students of Malaga turn off their mobile when they are studying on the contrary of their peers of Isfahan. Generally, students in the university of Isfahan use their mobile phones more than their counterparts in Malaga university.

The telephone has become an essential object in the world, till the level that the British company SecurEnvoy in 2011, after conducting a study of this topic in the United Kingdom, coined the term nomophobia to define the irrational fear to leave home without a mobile phone. Its consequent antonym is that of nanophilia. The term is an abbreviation of the English expression "no-mobile-phone-phobia" fear of not having mobile. In their study, SecurEnvoy found that two-thirds of the population (66%) were afraid of losing or being without their mobile phone (Garcia-Martinez & Fabila Echauri, 2014).

Lorente (2002) adds an interesting concept, the "virtual brotherhood, to explain the compulsion of the very young to use the mobile and the SMS to speak with the vicarious brothers due to the fact of being an only child or not having brothers of the same gender. The emerging family type with one or two children is propitiating this phenomenon that implies the urgent need of the child / youth to have siblings to talk to them. In this period, the use of messaging is very intense. And the mobile is anything but mobile: it is, above all, a personal telephone.

Actually all the authors explain the Mobile-phone boom among young people supporting it on the sociological concepts of group and primary relationships, which provoke among the youth two urgent needs: identity and communication.

According to Zokai (2009) the mobile phone has created a new field that young people have had more opportunities for entertainment, communication and independence, and have helped to strengthen the agency, individuality and power of the youth by facilitating and redressing certain shortcomings in the public sphere. With such power, the mobile phone continues to operate within the framework of gender and class differentials as well as differences in the use of social capital.

As the results showed, the general profile of both groups is quite similar. In addition the so-called globalization and homogenization of the ways of communication is extend across most of the countries. A minority turn off their mobile phones during the day, but in the rest of the groups the mobile is always present and a constant company either in their hand or in the bag.

However both the cultural roots and the technical infrastructure shade the results. The students of Isfahan speak among themselves more than their peers in Malaga, they also spend more time with the lots of possibilities offered by the mobile phone: taking pictures, listening music and so on. It seems that the use of mobile has more social relations and interaction with peers than the students of Malaga. Perhaps if they had more technical possibilities and more economic capacity they would spend more time dedicated to their favourite hobbies through the mobile.

In the expansion of the system of services through the network it has been see how little by little companies in the sector increase both bandwidth and extension to all territories and business and / or industrial needs also benefit the population in general by increasing their networks and connectivity. Although the interest is economic at the end, the general population can benefit from the issue of information and communication.

Excessive or improper use of mobile phones can be a problem especially in school spaces, as shown by the Pew Research Center, through the Pew Internet and American Life Project (2010) of the United States shows that many schools prohibit the use of cell phones, and despite this, 65% of students attend classes bringing them daily, and 43% of students report that they use the device during class at least once per day. Asgari and Delavar (2017) in a study about nomophobia among mobile users in Tehran, Iran found that 78% of participants owned a smartphone and there was not any gender difference in the amount of time spending online as well as the amount of money spent on internet packages. In this study, calling friends were the most important aspect of having a mobile phone, and they would use it for organizing meetings, going outs, accessibility and feeling safety when there was a perceived danger.

The result of a study undertaken by Dixit and colleagues (2010) showed that 18% of university students were nomophobic and there was not any gender difference with this regards. Almost 73% of respondent said they keep their mobile phones with them 24 hours a day and 20% said that they would lose concentration and become stressed

if they do not have access to their mobile phones. Having mobile phone close to oneself is becoming a common phenomenon that 56% students asserted that they keep their mobile phones in their pockets close to their body, so they can feel they are connected to their phones.

This needs to have a constant access to mobile phone have urged people to use portable battery charger, using alternate number, having several mobile phones and storing contact numbers in different locations as back up.

Moosavi and Shafigh (2017) in a study about mobile phone addiction among Tehran youth fount that although the level of mobile phone addiction is not alarming at the moment, the trend is not in its lowest. Cyber addiction they believe would become a modern kind of addiction among Iranian youth.

IMPLICATIONS

The fact that the majority of participants in this study had their mobile phone on all the time raise the concern of a possible epidemic of cyber and mobile phone dependancy in the future. There are a number of studies about the effects of this kind of addiction on different aspects of people's life. Cyber-addiction has been found to be correlated with loneliness (Ezos & Toda, 2013), anxiety (Caplan, 2006; Cheever, Rosen, Carrier, & Chavez, 2014), depression (Chen, 2004; Kim, Ryu, Chon, Yeun, Choi, seo, & Nam, 2006; Yen, Ko, Yen, Wu, & Yang, 2007), sleep- disturbance (Thomee, Harenstam & Hagberg, 2011), self-esteem (Leung, 2008) and low academic performance (Hawi, & Samaha, 2016; Huang, & Leung, 2009).

Harman & Sato (2011) warn of the possibility that the level of use of cell phones can have a significant effect on academic performance as well as on psychological and social aspect of students' life. Therefore, measures should be undertaken to facilitate university students to manage their use of mobile phone and enjoy the benefits of it rather than suffering from negative consequences of exessive use.

REFERENCES

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (DSM-5). American Psychiatric Pub.
- Agari, S., & Delawar, A. (2017). Investigating the relationship between mobile phone use and the non-mobile-phone-phobia feeling among mobile phone users in Tehran. Innovations and Creativity in Human Science, 6(4), 197-224. [Persian]
- Caplan, S. E. (2006). Relations among loneliness, social anxiety, and problematic Internet use. CyberPsychology & Behavior, 10(2), 234-242.
- Centro de Seguridad en Internet para los Menores en España: PROTEGELES. 2014. [in Spanish]
- Chen, Y. F. (2004). The relationship of mobile phone use to addiction and depression amongst American college students. Mobile Communication and Social Change, 10, 344-352.
- Cheever, N. A., Rosen, L. D., Carrier, L. M., & Chavez, A. (2014). Out of sight is not out of mind: The impact of restricting wireless mobile device use on anxiety levels among low, moderate and high users. Computers in Human Behavior, 37, 290-297.
- Chóliz, M., Villanueva, V. & Chóliz, M.C. (2009). Ellas, ellos y su móvil: Uso, abuso (¿y dependencia?) del teléfono móvil en la adolescencia. Revista Española de Drogodependencias, 34(1)374-818. [in Spanish]
- García Martínez, V., Fabila Echauri, A. M. (2014). nomofilia vs. nomofobia, irrupción del teléfono móvil en las dimensiones de vida de los jóvenes. un tema pendiente para los estudios en comunicación. Razón y palabra. Comunicación y Ciudadania. Numero 86 abril-julio. [in Spanish]
- Dixit, S., Shukla, H., Bhagwat, A. K., Bindal, A., Goyal, A., Zaidi, A. K., & Shrivastava, A. (2010). A study to evaluate mobile phone dependence among students of a medical college and associated hospital of central India. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine, 35(2), 339-341.

- Ezoe, S., & Toda, M. (2013). Relationships of loneliness and mobile phone dependence with Internet addiction in Japanese medical students. Open Journal of preventive medicine, 3(6), 407-412.
- Harman, B. A., & Sato, T. (2011). Cell phone use and grade point average among undergraduate university students. College Student Journal, 45(3).
- Hawi, N. S., & Samaha, M. (2016). To excel or not to excel: Strong evidence on the adverse effect of smartphone addiction on academic performance. Computers & Education, 98, 81-89.
- Huang, H., & Leung, L. (2009). Instant messaging addiction among teenagers in China: shyness, alienation, and academic performance decrement. CyberPsychology & Behavior, 12(6), 675-679.
- Informe Ditrendia. Mobile en España y en el Mundo 2016. https://ditrendia.es/informe-ditrendia-mobile-en-espana-y-en-el-mundo-2016. [Spanish]
- Khazaee, T., Saadatjoo, A., Shabaji, M., Senobari, M., & Baziyan, M. (2014). Prevalence of mobile phone dependency and its relationship with students' self-esteem. Knowledge and Health, 8(4), 156-162. [in Persian]
- Kim, K., Ryu, E., Chon, M. Y., Yeun, E. J., Choi, S. Y., Seo, J. S., & Nam, B. W. (2006). Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: a questionnaire survey. International journal of nursing studies, 43(2), 185-192.
- Leung, L. (2008). Linking psychological attributes to addiction and improper use of the mobile phone among adolescents in Hong Kong. Journal of children and media, 2(2), 93-113.
- Lorente, S. (2002). Juventud y y teléfonos móviles. Algo mas que una moda. Estudios de Juventud n.o 57/02 (9-24). [in Spanish]
- Mousavi, K., & Shafigh, Y. (2017). Addiction to mobile phone in Tehran: A sociological study. The Iranian Sociological Journal, 17(4), 139-164. [in Persian]
- Nasrallahi, S. Shahsavari, S., Salehi, R., Abedi, M., Sadeghi, S., Hayati-Neia, S.S., Siyari, F. (2015). The study of internet addiction and its related factors

- among students of Kurdistan university of medical sciences during the academic year of 2014-15. Zanko Journal of Medical Sciences, 16(48), 1-9. [in Persian]
- Navabakhsh, M., Hashemnejad, F., & Zas Sha Pour. (2010). Study of internet and mobile effects on identity change o fyoung people aged between 15-29 in Mazandaran province. The Professional Journal od Sociology,1(1), 145-170. [in Persian]
- Pedrero Pérez, E. J.; Rodríguez Monje, M.T.; Ruiz Sánchez de León, J. M. (2012). Adicción o abuso del teléfono móvil. Revisión de la literatura. Adicciones, 24(2),139-152. [in Spanish]
- Pew Internet & American Life Project. (2010). Teens and mobile pone. Retrieved from https://files.eric.ed.gov/fulltext/ED525059.pdf
- Pourrazavi, S., Allah-Verdipour, H., Ghotchian, A. (2012). Determining self-regulatory forecasting and self-control on extreme use of mobile phones by students. Scientific Journal of Hamadan University of Medical Sciences & Health Services, 2 (22), 152 160. [in Persian]
- Research on Internet Addictive Behaviours among European Adolescents. 2012. www.eunetadb.eu.
- Shambare, R., Rugimbana, R., & Zhowa, T. (2012). Are mobile phones the 21st century addiction?. African Journal of Business Management, 6(2), 573.
- Thomée, S., Härenstam, A., & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults-a prospective cohort study. BMC public health, 11(1), 66.
- Valor, J., & Sieber, S. (2004). Uso y actitud de los jóvenes hacia Internet y la telefonía móvil. PwG&IESF. Barcelona. España. [in Spanish]
- World Health Organization. (2015). Public health implications of excessive use of the internet, computers, smartphones and similar electronic devices: Meeting report, Main Meeting Hall, Foundation for Promotion of Cancer Research, National Cancer Research Centre, Tokyo, Japan, 27-29 August 2014. World Health Organization.

- Yassimi-Nejad, P., Golmohammadian, M., Yousefi, N. (2012). The Relationship between General Health and Excessive Use of Mobile Phones in Students. Knowledge & Research in Applied Psychology, 13(1), 61-73. [in Persian]
- Yahyazadeh, S., Fallahi-Khoshknab, M., Norouzi, K., & Dalvandi, A. (2017). The prevalence of smart phone addiction among students in medical sciences universities in Tehran 2016. Advances in Nursing & Midwifery, 26(94), 1-10. [in Persian]
- Yen, J. Y., Ko, C. H., Yen, C. F., Wu, H. Y., & Yang, M. J. (2007). The comorbid psychiatric symptoms of Internet addiction: attention deficit and hyperactivity disorder (ADHD), depression, social phobia, and hostility. Journal of adolescent health, 41(1), 93-98.
- Zafari, S., Karamdoust, N., Dorani, K., & Zare, M. (2014). Study of the use of postgraduate students of the university of Tehran of using mobile phone for educational and general purpose. Journal of ICT in Education, 4(3), 87-106. [in Persian]
- Zokaei, M.S., Valizadeh, V. (2009). Youth and Mobile Culture. Iranian Cultural Research, 2(3), 119-152. [in Persian]