Available online at www.sciencedirect.com

ScienceDirect

Procedia - Social and Behavioral Sciences 132 (2014) 398 – 404

Procedia Social and Behavioral Sciences

6th International Conference on Intercultural Education "Education and Health: From a transcultural perspective"

Young people, drugs, prevention, and ICTs

Ana Millán Jiménez[a]*, Antonio Pérez Manzano[b], Javier Zamora Arenas[c]

[a]*Universidad de Murcia, Facultad de Economía y Empresa, Espinardo 30100, Spain*
[b]*Universidad de Murcia, Facultad de Educación, Espinardo 30100, Spain*
[c]*Universidad de Murcia, D Building, Espinardo 30100, Spain*

Abstract

Nowadays young people are growing up in a social environment in which the use of toxic substances is becoming the norm. Moreover, it has been proven that their leisure activities are frequently associated with polydrug use. On the other hand, the internet, and social networks specifically, have become another fundamental axis of their leisure and free time. Due to both factors, it is important to launch initiatives that combine prevention strategies and intervention activities, which use their own language and communication systems. This way we will increase the probability of success.

What we are presenting here are the results of research carried out in the University of Murcia, in which we study and implement initiatives aimed at the prevention of drug addiction in young people based on the use of Information and Communication Technologies (ICTs). We develop two lines of identical action with one core difference: one is based on the use of ICTs, and the other is based solely on the use of traditional systems (leaflets, posters, etc.). After comparing the results of participation and the qualitative assessment of the participants in the respective programs, we conclude that ICTs promote the diffusion of activities and attitudes towards a reduction in the use of toxic substances, and increase the requests for intervention to cease consumption.

Selection and peer-review under responsibility of HUM-665 Research Group "Research and Evaluation in Intercultural Education".

Keywords: prevention; addictions; drug dependence; alcohol; drugs; young people; university; university community; technology; ICT

* Corresponding author. Tel.: +0034-868-884095;
E-mail address: amillan@um.es

Selection and peer-review under responsibility of HUM-665 Research Group "Research and Evaluation in Intercultural Education".
doi:10.1016/j.sbspro.2014.04.328

1. A Reality in young people: use and abuse of substances

To understand why young people use drugs and what kind of use they carry out, it is essential to understand the context in which these behaviours take place. The abuse of alcohol and drugs has become common practice for young people, especially at weekends. In order to prolong and intensify fun and achieve effects such as lack of inhibition, braveness, euphoria, evasion from reality, or just integration in a group, they use and mix diverse toxic substances, generally in an uncontrolled way (Becoña 2007). These patterns convert into risk behaviours with serious consequences.

The most common cause of drug use among students is group pressure. It is the combination of peer group pressure with the desire to be accepted. The non-participation in these behaviours may lead to exclusion. The use of toxic substances has become a socializing and integrating element in these collectives.

Another trigger for risk behaviours among young people is the format for partying and leisure activities that surround university life. The central aspect of these is usually the social consumption of alcohol ("Botellón"), which on many occasions goes together with the use of other addictive substances. We can find abundant literature (Baño et al.; 2004) that illustrates an increase in poly-consumption; which means, amongst many other things, a vast expansion in the range of combinations, physical and pharmacological, of cannabis with other drugs.

Regarding alcohol, we observe that diverse economical, cultural, and social changes have provoked an increase in its availability, not only in terms of quantity but also in terms of diversity and quality, which has led to an increase in its consumption amongst the female population, both young and adolescent (Robledo, 2002).

It is also important to point out that alcohol consumption may be the first step towards a series of addictive behaviours. Any of these substances, alcohol, tobacco, marihuana or cocaine, may lead to the use of other drugs (Robledo, García, Rubio & Espiga, 1996). We should not forget that, in many cases, these examples are linked to deviant, antisocial, and problematic behavioural patterns (Becoña, 2007).

The research we present is aimed at the prevention of alcohol and drug consumption within the university community by means of the use of materials and resources that are familiar to it, such as new information and communication technologies.

2. ICTs as a social agent

The social environment of young people is increasingly defined by virtual and technological spaces that are used for different purposes. Technology makes available what was not before, it brings us closer to subjects, objects, and events with great ease and speed; it provides us with information, work resources, the possibility of building relationships and participating in activities, where the coordinates of space and time are no longer applicable; in short, it increases our ability to act at any given time or place. This is the positive side of technological mediation. The negative one is also extensive, because, among other things, while it may be true that every kind of technology provides us with different possibilities, it is also true that its domination requires hours of practice and study. Digital gadgets appear and evolve (or disappear) so quickly that is difficult to arrange an organized and controlled learning of them (Bernete, 2010). We have to add to this alleged personal effort their capacity to emotionally affect the users (Gubern, 2000).

We talk more and more about the psychological, and social, and somehow pathological, consequences. These Hooks imply a certain type of addiction since they make us lose time for resting, studying, leisure or any activity that does not require us to be connected. They damage the emotional and personal side of close relationships that require physical presence, while promoting virtual connections mediated by networks. As these circumstances are becoming more and more frequent, it is increasingly necessary for us to analyse how this virtual space can be structured, and at the same time ascertain which variables interact between the cabled world, primarily the internet, and young people.

Nevertheless, we would be making a mistake if we treated the entire youth stratum in a homogeneous way. There are socio-cultural variables that affect the use of these new technologies. In fact, the growth of ICTs in society depends not only on its infrastructures and capacities, but also on other psychological, familiar, and

contextual elements of daily life, which speed up or slow down the appropriation of the most innovative technologies. We can detect a structural inequality in the accessibility and competence to use these technologies.

The current panorama is a wide spectrum of Spanish young people using the Internet for different purposes in their daily life. The university collective, mainly the students, is completely integrated in the group that has access to and use of the internet. Our aim is to identify how the use of ICTs affects behaviour, relationships and socialisation based on the interaction of a peer group. We have to direct our efforts in the matter of drug dependence intervention towards the potential modifying effects of these digital tools that modify physical and social reality (Pérez, 2010, p.64).

These premises lead us to the conclusion that a legitimate and feasible option is to strategically introduce them in the academic field, because these virtual media and what they transmit have become primary socializing agents of maximum relevance.

In conclusion, our experiment is focused on trying to get young people to use the time devoted to ICTs to take part in different options that appeal to them and also draw them away from toxic substances; and determine whether there are positive modifications in their behaviours by comparing the results with people who have not taken part into these practices.

3. Methodological aspects of the research

As mentioned above, we have created two lines of action each with a similar content but a different format. The data obtained has been compared in order to verify the differences. Both programs for the prevention of drug dependence were applied to the same target population (university students) with a time difference of six months.

The first program was planned on the basis of a traditional system for the dissemination of activities, such as leaflets, posters, an informative website, and a call centre. The second program is designed with ICTs dissemination activities such as, virtual spaces, social network dynamization, online interactive groups, online assistance via the web and email, videogames containing messages against drug use and preventive flash videos for viral marketing.

The programs were disseminated amongst the university community at the University of Murcia to students carrying out official degrees. For both programs, student participation data was registered for actions towards ceasing use, crossing this information with variables such as information requests, inquiries related to use issues, declared drug use, participation in self-help groups, cessation rates, and the average number of therapeutic sessions, amongst others.

The therapeutic interventions of the non ICTs group were based on individual clinical sessions and sessions in self-help groups, attendance being a requirement for both of them. On the other hand, the therapeutic interventions of the ICTs group included virtual clinical sessions by means of a text chat, a supporting SMS service (with messages such as “c’mon, you can do it” or similar), and virtual self-help groups by a digital platform with personalized access and mentoring by a therapist.

On the basis of the assessments of the participants with declared drug use carried out in both programs (105 for the non ICTs group and 297 for the ICTs group), we can obtain the degree of efficiency for both programs.

4. Approaching the results

Initially, our attention is drawn to the unequal gender proportion among the participants in both programs, as observed in table 1. This circumstance is very common in the intervention actions for addictions, where female presence is very low; in the drug use studies their user rate is lower than the male but, in any case, much more elevated than their participation in treatments may lead us to think.

Table 1. Participants and gender by program (Source: data obtained during research. Own compilation.)

Activity	Non ICTs group		ICTs group	
	Male	Female	Male	Female
Participants	86 (81.9%)	19 (18.1%)	209 (70.4%)	88 (29.6%)

In table 1, we find that, although female presence percentages are still comparatively very low, in the ICTs group the difference is smaller (18.1% of women in the non ICTs group compared with 29.6% in the ICTs group).

Then we observe in table 2 some of the most representative quantitative data derived from the application of both programs. It is interesting to comment on some of the results gathered in order to compare the differences in terms of the efficiency of both types of program.

Table 2. Participants in the activities of each program (Source: data obtained during research. Own compilation.)

Activity	Non ICTs group	ICTs group
Information requests	143	408
Inquiries related to use issues	42	244
Participants with declared drug use	105	297
Participants in self-help groups	27 (25,7%)	252 (84,8%)
Abandonment after three months	8 (29,6%)	11 (4,3%)
Abandonment after six months	4 (14,8%)	6 (2,4%)
Average therapy attendance per participant	9	3

The dissemination conducted through ICTs tools (social networks, videogames, flash videos and viral marketing) compared with the one based on non ICTs traditional methods (leaflets, posters, an informative website, and a call center) shows us a high efficiency rate in the attraction of potential participants in the program, being clearly visible the difference in the following fields: received information requests (143 against 408); inquiries related to use issues (42 against 244); or the number of participants with a declared drug use registered in the intervention program (105 against 297). Regarding the last ones, it is interesting to check the percentage of people interested in being included in self-help groups and being supposed to attend them for six months, reaching 25.7% in the non ICTs group compared with a strong 84.8% in the ICTs.

Undoubtedly, one of the most common elements in the intervention programs in drug use or addiction situations is the rate of abandonment; hence it was one of the most awaited comparisons. The results, as shown in table 3, met our expectations: the abandonment rates gathered in the ICTs group are considerably lower in comparison to the non ICTs group, both after three and six months (29.6% against 4.3% after three months and 14.8% against 2.4% after six months).

Table 3. Percentage values from the satisfaction survey for each program (Source: data obtained during research. Own compilation.)

Assessment Survey Item	Non ICTs group	ICTs group
I have perfectly understood the risks derived from drug use	40.9%	71.0%
I consider I have had enough support to give up use	62.8%	84.5%
If I needed it, I would come back to participate in a similar activity	55.2%	88.8%
I think the activities organized are useful to prevent people from using addictive substances	78.1%	93.9%
I have felt supported during every activity of the program	65.7%	86.5%
The work of the support specialists has been very useful	52.4%	85.2%
During the program, I have always had somebody to turn to when at times of anxiety due to drug use	30.5%	6.7%
I do not think I will use drugs again	68.6%	88.2%
I have felt I am in the same circumstances as other people participating in the program	32.4%	82.1%
I have established friendships with other participants in the program	18.1%	67.7%

In Table 3 we can observe the results of the satisfaction survey completed by the participants in both groups. In the first one, when they are asked about their understanding of the risks of drug use we see how the level of understanding is higher in the ICTs group (71%), which has worked with materials such as videogames or flash videos where myths, behaviours, or situations connected to drug use were shown, in comparison to the non ICTs group (40.9%)

The support received by the program has resulted considerably higher in the ICTs group (84.5%) compared with the traditional one (62.8%), as well as the interest in participating again in a similar program if necessary (88.8% against 55.2%).

Confidence in the therapeutic capacity of the program's actions has also been mostly supported by the majority 93.9% of the ICTs group compared with 78.1% by the other group; interestingly enough, we have determined the level of participants who reported their confidence in the activities of the program and felt supported by them (86.5% ICTs group against 6.7% non ICTs group). The assessment of the therapists in charge has also favoured the ICTs group (85.2% against 52.4%).

Of great interest are the results obtained about the confidence shown in avoiding a relapse into drug use (88.2% in ICTs group against 68.6% in non ICTs group).

We also noticed how the ICTs group is also favoured in terms of the capacity to identify and empathise with other members of the self-help group (82.1% against 32.4%) and the friendships established (67.7% against 18.1%).

Given the observed differences, we decided to carry out a research in order to determine the connexion between the fact of belonging (with declared consumptions) to ICTs and non ICTs group and its results in the variable of the general satisfaction with the program. Due to the characteristics of such variables, we chose Pearson's Chi-squared test, and its results are shown on Table 4.

Table 4. Connexion between ICTs-non ICTs group and general satisfaction level
(Source: data obtained during research. Own compilation.)

Chi-squared tests	Value	fg	(Bilateral) asymptotic significance
Pearson's Chi-squared test	27.215	4	.000
Authenticity reasons	27.274	4	.000
Linear association by linear	2.519	1	.112
Number of valid cases	402		

Symmetric measures		Value	Approximate significance
Nominal by nominal	Contingency coefficient	.182	.000
Number of valid cases		402	

The results obtained in the Pearson's Chi-squared test, $\chi 2(3) = 27.215$, $p= 0.000$, states that there is a statistically significant connexion between the fact of belonging to ICTs group and non ICTs group and the level of the general satisfaction with the program. We can therefore reject the null hypothesis of independence between variables, as the critical level of probability is lower than 0.05.

5. Conclusions

As expected, the female participation levels are much lower than the male ones, something we have already commented on, and is common in these kind of programs. Nevertheless, it is relevant to point out the interesting difference between the two groups, in the non ICTs group the percentage of female participation levels are substantially higher than the ones in the non ICTs group. This leads us to believe in the possibility of having

anonymous treatments (avoiding attendance) as a resource to increase the female participation levels in drug use and addiction treatment programs.

The interest in taking part in self-help groups where attendance is required is considerably lower in comparison to virtual self-help groups, which shows that the relevance of anonymity and virtual interaction in these issues, elements in which ICTs resources may become a useful tool for the therapist. The use of virtual self-help groups in treatment sessions of this kind decrease the abandonment rate both within three months (the traditionally highest peak point) and within six, making clear all the virtues of these kinds of groups in treatments where attendance may be considered a handicap.

The ICTs resources have also helped to better acquire the concepts of use prevention, as well as make it possible to have a considerably better perception of the therapeutic actions and the support obtained in comparison to those based on traditional methods. Likewise, the confidence perceived in the possibility of avoiding a relapse into use has been very relevant with the use of ICTs actions.

Empathy, the closeness perceived, and the friendships established in the virtual groups have been considerably higher in comparison to the groups requiring attendance, possibly due to the nature of the personal circumstances dealt with in the group. In conclusion, it is clear that the use of new technologies in the prevention of drug use is highly positive.

References

Albero, Magdalena (2002). Adolescentes e Internet. Mitos y realidades de la sociedad de la información, *Zer,* 13.

Anduiza, E; Cantijoch, M; Gallego, A and Salcedo. J. (2010). Los usos políticos de Internet en España. *Revista Española de Investigaciones Sociológicas*, 129,133-146.

Baño Rodrigo, M.D., Ramos Atance, J.A., López García M.L, De Antonio Pérez, V. and Guillén Llera, J.L. (2004). Síndrome de abstinencia y otros efectos en jóvenes fumadores de hachís. *Adicciones*, 16 (1), 19-30.

Becoña Iglesias, E. (2007). Bases Psicológicas de la Prevención del Consumo de Drogas. *Papeles del Psicólogo*, 28 (1), 11-20.

Bernete, F. (2010). Usos de las TIC, Relaciones sociales y cambios en la socialización de las y los jóvenes. *Revista de Estudios de Juventud*, 88, 97-114

Berríos, Llarela y Buxarrais, M. R. (2005). Las tecnologías de la información y la comunicación (TIC) y los adolescentes. Algunos datos. OEI , Monografías virtuales: *Ciudadanía, democracia y valores en sociedades plurales*, 5.

Calafat, A., Juan, M., Becoña, E., Castillo, A., Fernández, C., Franco, M., Pereiro, C., y Ros, M. (2005). El consumo de alcohol en la lógica del botellón. *Adicciones,* 17(3), 193-202.

Castaño, G.A. (2006). Nuevas tendencias en prevención de las drogodependencias. *Salud y Drogas*, 6 (2), 127-148.

Fundación Telefónica (2013). *La sociedad de la información en España 2012*. Barcelona: Ariel.

García Carrasco, A. M. (2004). Consumo de alcohol y estilos de vida: una tipología de los adolescentes españoles. *Revista de Psicología Social* 19 (1), 51-79.

Gates, S., McCambridge, J., Smith L.A. and Foxcroft, D.R. (2008). Intervenciones en ámbitos no escolares para la prevención de drogadicción en jóvenes. *La Biblioteca Cochrane Plus*, 2.

Gil Madrona, P., González Villora, S., Pastor Vicedo, J.C., and Fernández Bustos, J.G. (2010). Actividad física y hábitos relacionados con la salud en los jóvenes: estudio en España. *Reflexiones,* 89 (2), 147-161.

Gómez-Fraguela, J.A., Fernández-Pérez, N., Romero Tríñanes, E., and Luengo Martín, A. (2008). El botellón y el consumo de alcohol y otras drogas en la juventud. *Psicothema*, 20 (2), 211-217.

Gubern, R. (2000). *El eros electrónico*. México: Santillana.

Larrañaga, E., Yubero, S., Navarro, R., and Sánchez, M. C. (2005). Factores sociales y educativos en el consumo de alcohol en jóvenes. *Pedagogía Social. Revista interuniversitaria* 12-13, 17-31.

Lema, L. F., Salazar, I. C., Varela, M. T., Tamayo, J. A., Rubio, A., and Botero, A. (2009). Comportamiento y salud de los jóvenes universitarios: satisfacción con el estilo de vida. *Pensamiento psicológico* 5(12), 71-88.

Lorente, S. Bernete, F y Becerril, D. (2004). *Jóvenes, relaciones familiares y tecnologías de la información y de la comunicación*. Madrid: Injuve.

Ochaita, E; Espinosa, M. A; y Gutiérrez H. (2011). Las necesidades adolescentes y las nuevas tecnologías de la información y la comunicación. *Revista de Estudios de Juventud*, 92. 87-110

Pérez-Díaz, V., y Rodríguez, J. C. (2008). *La adolescencia, sus vulnerabilidades y las nuevas tecnologías de la información y la comunicación*. Madrid: Fundación Vodafone.

Pérez, A. (2011). Escuela 2.0. Educación para el mundo digital. *Revista de Estudios de Juventud*, 92, 63-86.

Ramón-Cortés, Ferrán (2010). ¿Internet amenaza el contacto real?. *El País*, 3/01/2010: Retrieved from http://www.elpais.com/articulo/portada/Internet/amenaza/contacto/real/elpepusoceps/20100103elpepspor_5/Tes.

Robledo T. (2002). Políticas institucionales de prevención de los problemas de salud generados por el consumo de bebidas alcohólicas en España y Europa. *Adicciones,* 14, 303-315.

Robledo, T., García, I., Rubio, J., and Espiga, I. (1996). Los jóvenes españoles y el alcohol. *Papeles del Psicólogo*, 65.

Sotelo J. (2011). Si McLuhan levantara la cabeza…La computación en la nube y el nuevo paradigma socio cultural. *Revista de Estudios de Juventud,* 92, 111-122.

Zweig, J. M., Buberstein, L., and McGinley, K. A. (2001). Adolescent health risk profile: the co-ocurrence of health risk among females and males. *Journal of Young and Adolescence*, 30 (6), 707-728.