

# AN APPROACH TO ADDICTION TO NEW TECHNOLOGIES: A PROPOSAL FOR PREVENTION IN THE SCHOOL ENVIRONMENT AND REHABILITATION TREATMENT

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*El vertiginoso avance de las nuevas tecnologías de la información y la comunicación (TIC's) ha generado, además de innumerables beneficios a la sociedad, cambios en nuestros hábitos de vida que no siempre son fáciles de asimilar de manera saludable. Estos hábitos son un caldo de cultivo en el que pueden desarrollarse malos usos de las TIC's, llegando a situaciones en las que se puede hablar de una adicción comportamental. El presente trabajo expone la experiencia del Centro de Tratamiento Triora MonteAlminara de Málaga en el desarrollo de una propuesta para el abordaje integral de esta problemática. Este proyecto incluye dos líneas fundamentales: la prevención en centros educativos y sociales, dirigida a jóvenes, familiares y profesorado; y el tratamiento de personas afectadas por este problema, con intervenciones como el ingreso terapéutico, orientación familiar y tratamiento ambulatorio individual y/o grupal, en función de las particularidades de cada proceso.*

**Palabras claves:** Adicción nuevas tecnologías, Adicción a Internet, Adicción al móvil, Prevención adicciones, Triora, MonteAlminara.

*The vertiginous progress of new information and communication technologies (ICTs) has generated, in addition to countless benefits to society, changes in our lifestyle habits that are not always easy to assimilate in a healthy way. These habits are a breeding ground in which poor and dysfunctional uses of ICT can be developed, resulting in what can be considered a behavioral addiction. The present research presents the experience of the Triora MonteAlminara Treatment Center of Malaga in developing a proposal for an integral approach to this problem. This project includes two fundamental lines of work: prevention in educational and social centers, aimed at young people, relatives and educational staff; and the treatment of people affected by this problem, with therapeutic interventions such as treatment center admission, family counseling and individual and/or group outpatient treatment, according to the particularities of each personal process.*

**Key words:** New technologies Addiction, Internet addiction, Mobile addiction, Addictions prevention, Triora, MonteAlminara.

**T**he use of new technologies (known as ICTs) in our environment has experienced exponential growth, in accordance with the increase in the diversity and specialization of the devices, and their ease of access and use. As in the case of drug addictions, both this greater accessibility and the generalization of use have favored the breeding ground in which problematic uses of these ICTs appear (Echeburúa, 1999; Soto, 2013), among which is found what we know today as the addiction to new technologies.

When talking here of using new technologies, which is a very broad and changing category, we refer more specifically to four realities:

- ✓ Internet use. Understood as "surfing" the Internet (regardless of the form of access) carrying out activities online: consulting sources of information, searching for entities or services, making purchases and transactions, etc.

- ✓ Use of the mobile phone. As it has such a diverse potentiality, the key factors are the rate of utilization (time, number of times consulted, etc.) and the need to be permanently attentive to it (Muñoz, Fernández, & Gámez, 2009).
- ✓ Video games. Traditionally associated with the computer and video consoles, but increasingly accessible through other devices (mobile, tablet, etc.). The emergence of online gaming is creating new risks in terms of access to inappropriate content and contact with other users.
- ✓ Social networks. No matter what type they are, they constitute a "universe of their own" within the virtual world. They replace unidirectional communication on the Internet by allowing direct interaction, in real time, with one or many people simultaneously and anywhere (Echeburúa & Requesens, 2012).

It is necessary to point out that we are referring to technologies and devices that are normally useful and productive, and that the risks we are talking about are associated with misuse, just as how a tool can become a lethal weapon when misused. This is common to what we know as psychological or behavioral addictions, which take place when a normalized daily behavior

*Received: 23 marzo 2018 - Accepted: 30 abril 2018*

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or habit (working, making purchases, surfing the Internet or communicating through social networks) loses its original meaning and becomes a form of evasion of reality, or a compulsive behavior that interferes in other areas of life (Echeburúa, 1999; Echeburúa & Corral, 2010; Soto, 2013).

In this context, a significant paradox is created in the use of ICTs due to the coincidence of two apparently contradictory factors. On the one hand, as they are in constant change and evolution, it is more complex to define the limits between “good use” and “misuse”, so it is very easy to get carried away by the fascination of the novelty and attractiveness of certain stimuli, thus losing control over their use. On the other hand, the possibility of being connected constantly, the widespread accessibility in access to devices and technologies, and the presence in all areas of our daily life, generate a complete “normalization” of their use and truly make it difficult for us to perceive the possible risks that, logically, they involve.

The concept of addiction to new technologies has not yet been agreed upon scientifically and academically and, so far, does not appear as such in the diagnostic manuals of diseases and mental disorders (DSM, ICD). Some studies and reviews doubt or deny its existence as an addictive disorder (Castellana, Sánchez-Carbonell, Graner, & Beranuy, 2007; Carbonell, Fúster, Chamarro, & Oberst, 2012). However, important treatment proposals exist already, and it has given rise to an extensive bibliography and numerous national and international studies, some of which are presented in Navarro & Rueda, 2007; Estévez, Bayón, Cruz, & Fernández-Liria, 2009; Muñoz et al. 2009; Labrador & Villadangos, 2010; Departamento de Psicología Evolutiva, Universidad de Sevilla [Department of Evolutionary Psychology, University of Seville], 2011; and Tsitsika, Tzavela, & Mavromati, 2013.

These studies, with a great variability in their results, show an important lack of definition in the concepts, and the difficulty in structuring tests and validated diagnostic criteria that allow us to generalize and compare the data. In any case, in most of them it is already perceived that the addiction to the Internet (and other related addictions) is only the “tip of the iceberg”, because for some people to develop this addictive behavior (even in very low percentages, between 1 and 3%), many others are “at risk” of developing it, with high levels of abuse and misuse (easily above 20%).

Beyond the diagnostic criteria and the more “academic” aspects of this issue, those of us who work with affected individuals find, behind this spectrum of up to now barely visible disorders, a serious psychological and socio-familial problem (Pérez, 2009), which is arriving (little by little, but nevertheless progressively more) at the treatment units.

The response to this reality is still scarce, variable and fragmented depending on the entity or unit that is intervening. In the school context, for example, we find frequent actions by members of security bodies, such as prevention of risks related to the use of the Internet (identity theft, access to inappropriate content, grooming, etc.), although prevention strategies for addictive behaviors are lacking. There are also different NGOs,

foundations and similar organizations, which carry out important work of information and awareness on their websites, although their degree of penetration in society is not yet as to be desired.

### ***Why this integral approach?***

We can highlight three factors that, based on our experience, have moved us to develop a more global strategy towards the problems of misuse, abuse and addiction of new technologies. They are the following:

- ✓ In the addiction prevention programs and the family classes that we traditionally carry out in schools, local entities, associations, etc., the demand for information from parents and educators has been growing ever stronger regarding the use that children and adolescents should make of the mobile, Internet, social networks, etc.
- ✓ Paradoxically, as has been stated at the beginning, this concern for the habits of ICT use of the youngest children is accompanied by a low perception of the risks involved, so most of the time this concern is not translated into decisive actions to control these habits.
- ✓ At the Triora MonteAlminara Center in Malaga, we have been addressing, for the last seven years, information demands for behavioral disorders related to the use of new technologies in adolescents. It is the parents who report in after a specific crisis in the studies or due to their children’s disruptive behaviors, but after that first contact, it is common for the motivation to commit to a recovery process to decrease, leading to relapse and giving up. This difficulty has already been raised by other authors, such as Echeburúa and Corral (2010). The cases in which adherence to treatment does occur are those in which the most important consequences (especially social isolation and school failure, together with family conflicts) are already well advanced.
- ✓ On the other hand, it is also detected that some patients who come to treatment for drug consumption, pathological gambling and other behavioral disorders, have a history of misuse of new technologies, prior to the consumption of substances and in all probability related. In these cases, family, social and academic problems, which have often begun before the consumption of drugs, are very similar to those presented by ICT addicts.

From this experience, although there are as yet few people who come to complete a treatment process for addiction to new technologies (Echeburúa & Corral, 2010), we believe that there is an important breeding ground in the misuse and abuse of ICTs, which generates synergies in other addictive disorders, in addition to the fact that it could become an addiction problem in itself.

For all of the above reasons, considering that the disorders related to the misuse of new technologies may be undetected and untreated, a process of planning and implementation of new services is underway in order to address this reality. In this search for external resources and collaborations, we contacted the organization “Padres 2.0”, an NGO that works in this area,



in order to benefit from their experience in counseling families and adolescents in the safe use of the Internet. This alliance materialized in May 2015 with the signing of a collaboration agreement, in which the Triora MonteAlminara Center in Malaga has joined its national network of "ICT Expert" Centers, for the prevention and treatment of problems arising from the misuse of new technologies.

**PROGRAM OF PREVENTION IN THE SCHOOL**

In order to develop the "Program for the prevention of misuse of and addiction to new technologies in schools", the Triora MonteAlminara Center has used two main sources:

- ✓ On the one hand, it takes as a starting point its own experience in carrying out family classes and sessions for preventing drug addictions, which it has been imparting in schools for years. These activities, obviating the information related to toxic substances, include objectives that are perfectly applicable to the prevention of behavioral addictions, such as emotional management and communication. However, the ultimate goal in this case will be the good use of new technologies (Pérez, 2009; Ayuntamiento de Vitoria-Gasteiz [Vitoria-Gasteiz City Council], 2010), which is a differential factor with most drug prevention programs.
- ✓ On the other hand, it also relies on other initiatives to promote healthier lifestyles which, in a more general and transversal way, encourage the behaviors and habits that are related to positive development in adolescence, compared to the deficit model that focuses on what goes wrong. On this

point, as a reference we use concepts and approaches such as health assets, salutogenesis, resilience, peer teaching, positive parenting, etc., which have in common a gentler approach towards adolescence and the family, taking into consideration those aspects of the individual and their environment that are working well, and are the basis of a healthy construction of the person (Becoña, 2006; Council of Europe, 2006; Echeburúa & Requesens, 2012).

As opposed to actions that focus exclusively on adolescents, it is necessary to broaden the focus of this action to the other agents involved (Becoña, 2007; Castellana et al., 2007; Weir, 2017). For this reason, our proposal makes the prevention strategy for teachers, the young people themselves and their families, with differentiated interventions.

Following the scheme of Gordon (1987) in terms of levels of prevention, we are talking about:

- ✓ Universal prevention: aimed at the entire population, whether at risk or not.
- ✓ Selective prevention: targets the part of the population that is at risk.
- ✓ Indicated prevention: aimed at those who are already at a high level of risk, or have already developed problematic behaviors.

If we establish an action plan that includes these levels of prevention, and we cross them with the three target populations that we have determined previously in our prevention proposal, we will obtain the different actions that we carry out in practice, and which are included in the table in Figure 1.

The actions of the indicated prevention are those that refer to therapeutic interventions, will be presented in the section on treatment.

**Universal prevention**

In the experience that concerns us, universal prevention focuses on primary education, and is primarily aimed at parents and teachers, as they are responsible for monitoring and marking patterns of use of new technologies in children of these ages (Echeburúa & Requesens, 2012).

The main action is the development of family classes (to which teachers are also invited) in which, through didactic exhibitions, audiovisual supports and group dynamics, three main objectives are worked on:

- ✓ Sensitizing families (especially parents) about the importance of being present and accompanying their children when they start using the Internet, and related technological devices (mobile, video game console, tablet, etc.)
- ✓ Awareness of the need to establish clear rules and limits, both in the use of new technologies and in other daily activities, holding parents and educators responsible for promoting the rational use of ICTs.
- ✓ Offering strategies and skills in communication and emotional management, which allow them to feel more competent in dealing with situations and conflicts that may arise with children regarding the use of new technologies.

**FIGURE 1**

Recipients	Levels of prevention		
	Universal	Selective	Indicated
<b>Students</b>	Infant and primary education. Interventions with teachers.	Secondary education, FP and baccalaureate. Specialized sessions in the classroom. Early detection of addiction to TIC's	Individualized guidance in outpatient center. Therapeutic treatment with or without internment. Family therapy.
<b>Teachers</b>	Informative and awareness sessions. Courses and training days, according to educational level.	Informative and awareness sessions. Courses and training days, according to educational level.	Informative and awareness sessions. Courses and training days, according to educational level.
<b>Parents (families)</b>	Family classes for early childhood and primary education.	Family classes for secondary education, FP and baccalaureate.	Individualized counselling in outpatient center. Orientation and family support groups. Family therapy.



Although the risks related to misuse (access to inappropriate content, grooming, cyberbullying, etc.) are also addressed, these are not the central contents, since they are already dealt with in other activities that police and other social agents usually carry out in schools.

At the same time, training activities specifically aimed at teachers at primary schools are also carried out. These are implemented according to the demand (lower in primary schools compared to higher levels), and can be requested by the center itself in its continuing education programs, or they can be carried out through teacher training centers to reach more professionals. In addition to contents similar to those of family classes, teachers are offered the tools to address in the classroom the limits of good use of ICTs.

### **Selective prevention**

This is carried out with students, families and teachers (in this phase we intervene directly with the three groups) in secondary education (ESO in Spanish), Baccalaureate, and vocational training. The students of these educational levels have already made contact in a continuous way, and often substantially, with the virtual world and information and communication technologies, so there are already cases of misuse and abuse. The objectives of this intervention are:

- ✓ To encourage reflection in adolescents, families and teachers about the use that, in reality, each one makes of the Internet and electronic devices and communication.
- ✓ To develop in students the self-control and communication skills necessary to prevent problems derived from the use of ICTs, promoting peer support and the support of adult referents.
- ✓ To encourage a family and school climate in which to approach in a natural way the risks and conflicts related to new technologies.
- ✓ To provide tools to parents, teachers and educators for detecting, addressing and responding to cases of abuse and misuse of ICTs that may occur in the family and schools.

At these educational levels, early detection is fundamental, so prevention sessions are developed with the students, in which the contents and dynamics are developed that, depending on the age, educational stage and the greater or lesser contact with the technologies, respond to the aforementioned objectives. Questionnaires and surveys are administered in order to adapt the prevention sessions to each group, and together with them, to obtain a fairly clear snapshot of the conditions of the use of new technologies.

At this level we continue with the training of educators and parenting classes, with the same objectives as those of primary education, but adapting the contents to the different role they must maintain when the students are adolescents. Negotiation is included as one of the skills to be taken into account in the resolution of conflicts, as well as the need to promote self-control and the adolescents' autonomy in the appropriate use of ICT.

## **TREATMENT PROGRAM**

### ***Treatment of addictions***

Regarding the theoretical framework, it should be mentioned briefly that the addiction treatment program of the Triora MonteAlminara Center is based on a biopsychosocial, eclectic and integrating approach that attends to all the dimensions of the person, with a systemic view regarding the family approach (Soto, 2013). In any case, it also includes elements of the cognitive-behavioral model, third-generation therapies, and other psychological therapies. Of great importance are the transtheoretical (Prochaska & DiClemente) and motivational models (motivational interview), so present in the treatment of any addiction (Pérez, F., 2009)

The multidisciplinary therapeutic team (psychiatrist, doctor, psychologists, and nurses) assesses each demand, from biomedical factors to psychosocial factors, developing a personalized therapeutic itinerary. This may or may not include internment, the day center regime, and the individual and/or group outpatient follow-up; although most frequent is that the case passes, to a greater or lesser extent, through each one of these resources, since they all serve different objectives.

Within this generic provision of addiction treatment, the center has been incorporating patients with behavioral addictions for several years, among which are those related to new technologies, since in each process the interventions are adapted to the needs detected. Subsequently, this activity has gradually materialized in a more specific treatment to adapt to this demand, which we can categorize in two different profiles:

- ✓ People with a prior disorder, whether addictive or otherwise, for whom new technologies are a "catalyst" that triggers their initial problem. This, especially, includes gamblers who begin to play or bet online, greatly aggravating their prognosis. Also compulsive buyers for whom the Internet multiplies the risk of being driven by their impulses, or people with serious difficulties in social relationships (which may be due to different disorders) who find in the virtual world a space in which to take refuge from the difficulties of their daily life (Alonso-Fernández, 2003; Soto, 2013).
- ✓ People who, without presenting a previous pathology, develop problematic habits from coming into contact with certain uses of new technologies, such as video games or social networks, although it will always be difficult to rule out that there were no problems prior to this use. We are talking, generally, of very young people, adolescents and/or children, who by using ICTs continuously, significantly change their behaviors and life habits (Echeburúa & Corral, 2010; Echeburúa & Requesens, 2012; Soto, 2013).

The ultimate goal in all cases is to promote a lifestyle that is healthy and free of addictions. In the case of toxic addictions, this involves a practically total abstinence of addictive substances, while in the case of addiction to new technologies it will be necessary to establish healthy limits of use at first, with a view to the development of self-control and personal autonomy as tools for the correct management of impulses, in general, and the use of ICTs in particular (Pérez, 2009; Soto, 2013).



### **Phases and modalities of the treatment of technological addictions**

#### *Initial evaluation*

If in the treatment of addictions to substances it is necessary to carry out a complete evaluation, it is even more necessary when determining which interventions to carry out when dealing with addictive behaviors that are less studied and typified. From the first contact (normally telephone), the type of problem raised is recorded on the clinical complaint form, the person who is requesting the information, as well as the other necessary personal data.

Unlike attention to toxic addictions, the first contact with the interested party and/or his/her family is made in the outpatient treatment center, instead of the therapeutic internment center, because depending on the profile of the patients (usually very young, studying and without other addictions or pathologies) the recovery process takes place in outpatient format. However, the first contact is made in the therapeutic internment center in cases where, from the outset, the need for an internment phase is detected, either because of the advanced nature of the addition, or because a dual pathology is presented (together with another toxic addiction or some behavioral disorder) that recommends it, or because of the socio-familial situation (social isolation, difficulty in containing and controlling the family environment, conflicts, etc.).

The initial evaluation consists of a clinical interview with the psychologist, also using any diagnostic tests that are necessary (e.g., DANE questionnaire, in Labrador & Villadangos, 2009 and 2010, McOrman's Internet addiction test, in Estévez et al., 2009) depending on the specific problem. It includes the opening of the clinical record by the doctor or psychiatrist. In the initial interview, the information provided by family members is essential and, where appropriate, other professionals who are in contact with the patient (teachers, psychologists, etc.) or who have referred them to our service. After this first contact, it is determined whether more evaluation sessions are needed (in which case they are scheduled in a short period of time) or the treatment modality to be followed is offered, which may be one of the following:

#### *Therapeutic internment*

This is a format similar to the one we follow in the treatment of toxic addictions, with an approximate duration of between two and three months. During the internment phase, daily group therapy sessions are carried out, several interviews per week with the allocated psychologist, and a follow-up by the medical-psychiatric team; in addition to weekend family therapies. The objective of this first phase is awareness of the problem and the change that needs to be made, as well as the incorporation of a lifestyle that is healthier (rest, food, physical activity, communication, and socialization, etc.), safe, and free of harmful habits and addictions.

In the case that concerns us, addictions related to ICTs, specific elements of evaluation and treatment are incorporated, such as questionnaires and tests for problematic behaviors (online

gambling, Internet addiction, etc.), reflections about the use of free time and socialization offline, training in social skills, etc., necessary to address each situation in a more individualized way.

A therapeutic internment is recommended in cases where the addiction to new technologies is at a very advanced stage, when the problem is more complex (as described above), and does not involve an unnecessary interruption in the development of activities that are adaptive for the patient (studies, positive social group, etc.). In any case, this will be a first phase, which should be continued as outpatient treatment, with or without a transition period in a day center.

#### *Day Center*

This takes place in the center of internment, but attending certain activities (those that are considered necessary in each case) two or more days a week. It is conceived as a transition period from therapeutic internment to outpatient treatment, when it is necessary to do this more gradually or with more external control, and it may also be the initial treatment option, when prolonged internment is not recommended and outpatient treatment is insufficient. The criteria to opt for this modality, initially or as an intermediate phase, are the following:

- ✓ Safety criteria, when there is an increased risk of relapse, both due to personal factors and the environment, or greater difficulty in implementing control strategies in an outpatient format, which is frequent due to the accessibility of devices such as mobile phones. It is a very flexible format, as the frequency of attendance can be increased or reduced and the balance of time in the center/time at home adjusted, depending on the needs, the evolution or the appearance of possible conflicts; all of this allows the patient to attend, for example, training or work activities, when these are considered a priority in the process.
- ✓ Difficulties of incorporation into the socio-family environment. These may be because there are significant conflicts in the family nucleus or due to problems of isolation, lack of social skills, etc. In these situations, a short internment is usually very effective in interrupting the tendency, followed by longer periods of day center and outpatient treatment, in order to progress gradually in the objectives of family and social integration.
- ✓ For very young people, after a therapeutic internment it is very useful for them to go to the day center and maintain the link with the peers and psychologist who have been their reference, attending the therapies of the internment center before joining the outpatient process, with another location, another dynamic, etc.

#### *Outpatient process*

This is the treatment that is performed in the outpatient center of Malaga capital, which can be exclusively in the form of individual and family interventions, or it can include therapeutic group sessions. It is the treatment of first choice in all cases of abuse and addiction to ICTs that meet at least one of the following criteria:



- ✓ Children or adolescents for whom, due to their age or evolutionary maturity, it is not advisable to enter or integrate into a therapeutic environment with adult patients.
- ✓ Young people with a relatively structured lifestyle, with regular attendance at training and/or work activities, regardless of academic results, and who do not present violent behaviors that prevent cohabitation. It must be assessed whether these are significant and necessary activities, which a possible internment could make difficult.
- ✓ A family structure and environment favorable to treatment and with sufficient resources to face the changes. In these cases, which are frequent in young patients who are “caught” by their parents in the early stages of the problem, it is often sufficient to have individual and family interventions that are not too invasive.
- ✓ Patients of any age without serious behavioral disorders, whose specific problems (video game addiction, online gambling, misuse of social networks, etc.) can be addressed in their socio-family context without the need to be admitted or go to a day center.

The outpatient process, either as a continuation of another previous phase (or phases) or as the initial treatment, is always aimed at balancing and normalizing the lifestyle as the ultimate goal. It is, by its nature, the most extensive phase of the treatment and the most ecological, attempting to optimize the patient's own personal resources (motivations, concerns, abilities, etc.) and those of their environment (family support, social network of reference, socio-educational activities, etc.) in order to achieve full recovery.

In general, the patients (and the family members responsible for accompanying them) come to one or more weekly therapies with the psychologist, which may be more spaced out as the process progresses. In these, the individual objectives and the evolution of the patient are reviewed, adapting the stimulation control and relapse prevention strategies. Weekly group therapies are also offered in which patients and family members participate in differentiated groups according to the profile of age and pathology.

#### **Family approach**

Throughout the recovery process, special attention is given to the treatment and orientation of family members, especially since the majority of care for addiction to ICTs occurs in very young people who are dependent on their parents. During the internment and day center, on Saturdays families are seen in a group together with patients, and in individual patient-family meetings in which the evolution of the personal process is updated and issues are addressed relating to communication, conflicts, changes to be established in the following phases, etc.

In the day center and outpatient phases, specific interventions for families are given more weight, since they need this in order to deal with daily cohabitation with the relative undergoing treatment and to establish a good monitoring of the process. This is carried out in the groups of families, with the psychologist responsible for this monitoring, in which all of these questions

are addressed and, especially, the emotional state and well-being of the family members involved in accompanying the patient.

It is also of great importance to be able to negotiate together with the families the control and monitoring criteria, given that with addictions related to ICTs limits must be established regarding the use of devices and technologies (consoles, computers, television, domestic and professional networks, wifi, etc.) that may affect other members of the family and the patient's social relationships.

In other matters, the families' attendance at individual sessions with the patient, the presence of some members or others, the possibility of carrying out couple therapy, and other therapeutic options available, will depend on the needs detected in each case, and their evolution. In our experience, it is often necessary to carry out systemic interventions that facilitate the rebalancing of family relationships and roles.

#### **CONFLICT OF INTERESTS**

There is no conflict of interests.

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