

The new psychoactive products

Regulating practices...

The coming on the market of the products called “Research Chemicals” or “legal highs” is no accident. It corresponds to an evolution in the drug using community, based on several elements:

_ The new generation has seized the Internet tool and spends an enormous amount of time “online”, in the world of the “web” where pleasure seeking is continually expressed. This new generation of users shares its experiments of the use of NPS (New Psychoactive substances) through **Internet forums and it has now acquired a real expertise.**

_ New businesses have emerged on the market of online sales of psychoactive substances, providing an ever moving and international offer. The emergence of these new drug routes has contributed to the development of a new “Mafia”, that has adapted its strategies to this “Geek Generation”.

The law of 1970 is now forced into a virtual corner by these phenomena. These synthetic products are many, and their effects and their risks difficult to evaluate; their commercial profile and their online sale make them easily available on a large scale. Payments are carried out online by credit cards, using official bank routes; **in all these aspects they go beyond law enforcement**, which seems to have stalled in front of them.

As these NPS are conducive to risk taking, the addiction service providers need **to work out new harm reduction strategies**, which will fully, involving the users:

_ By developing information on the products, that the people who consume them end up knowing a lot better than the providers,

_ By including in our reflection, the users of these internet forums and valuing their expertise

_ By developing a new “Outreach” online, which implies that the Harm Reduction providers are present on the forums where this expertise is developed, without monopolizing this new tool of self-support, and by inviting the people visiting our centers to check them out themselves to increase their knowledge, to be nourished by the exchanges, and to meet new people.

To act effectively with an adapted Harm Reduction response, **the providers are challenged through these new synthetic drugs to create a new meeting space/time, that has a reality online and that is close to the users and to their missions.**

They bring again into question the capacity of the legal framework to adapt and offer an opportunity **to test new solutions for regulation which would not have to go through the criminalization of drug use.**

The “new psychoactive substances” (NPS) cover a heterogeneous range of psychoactive substances which are designed to mimic the effects of various drugs (OFDT definition). Their production mainly escapes the laws on illicit drugs, which targets only specific molecules.

For example, to change one atom of an illicit substance makes it impossible to prosecute. They are called differently depending on who names them (vendors, users, media...): “designer drugs” (a drug that imitates another), “research chemicals” (or RC, research chemicals) and “legal highs” (legal euphoriants).

They appeared on the French media scene in 2008, with the synthetic cannabinoid “Spice” (JWH-018) and Mephedrone, which made the headlines in 2010 following some deaths.

For the last few years, the number of NPS put on market has exploded. In 2012, 72 new psychoactive substances - that is to say more than one per week – were reported through the European warning system¹. It is more than the previous years: 49 in 2011, 41 notified in 2010, and 24 in 2009.

Lately, the “English drug tsar”, Pr Iversen, estimated at more than 200 the number of different NPS for sale on the Internet.

Whereas the United Kingdom, Ireland and Poland, are leading, the NPS consumption in Europe, France is in the first of 10 European countries where young people (15-24 years) have experimented with NPS, with 5% prevalence.

The NPS are products of the internet revolution

New technologies influence all the aspects modern life, from the information to the nature of the drug market and the consumer demand. The use of Internet has revolutionized the way in which users inform themselves on drugs: In Europe, between 2002 and 2011, the percentage of the 15-24 years stating to have used the Internet as a source of information on psychoactive products has passed from 30% to 64%. More and more, they also buy drugs on Internet, in particular NPS.

With the Internet, globalization, distribution and sale improvements to the greatest number that they allow, the multiplication of synthetics can now be available to a lot of people on a worldwide scale. In the European plan, the OEDT regularly records the number of sites that sale NPSs online and offer delivery inside the European Union (EU) in European languages.

Their number has not ceased growing: from 170 in 2010 to 693 in January 2012 (including 30 in French and 23 in other European languages).

Users Forums and “trips reports”

With the democratization of information on drugs, the user’s forums have a special place. The Internet made possible the creation of new communities. Starting in the mid 2000, French-speaking forums like Psychonaut, Lucid State or Psychoactive, or English-speaking ones like Bluelight or drugforum were born. With different visions, they offer information on psychoactive products.

For drug users, often exposed to stigmatization and criminalization, the relative anonymity of Internet is essential. Internet gives the consumers the possibility to break the silence and personal accounts will keep multiplying. Never before did we have as much access to first hand reports of users.

With the advent of NPS, these forums become all the more important as they are the principal source of information to reduce the risks. User's testimonies have formalized and taken the name of “trip reports”. A “trip report” is a report in time of a person's experience while taking one or more drugs. It describes the effects, the dosage, mode of consumption, the secondary effects, and the context of use (other drug-taking, weight and sex of the person, life habits...). These accounts are shared within the community of users, mainly online, and provide a basis for other people who wish to take these drugs, so that they can prepare and reduce the risks related to their use.

Research Institutes like the OFDT or the OEDT watch these user forums and their “trip reports” to detect the emergence of a new NPS, and to evaluate the possible damages.

¹ <http://www.emcdda.europa.eu/publications/annual-report/2012>

What are NPS?

In 2012, two thirds of the NPS discovered are cathinones (like mephedrone) (also called “bath salts”) and synthetic cannabinoids (like “Spice”). But the whole range of “old” drugs has its equivalents in NPS. The new synthetic products can be stimulants (2-AI, ethylphenidate, camfetamine, AMT, methiopropamine), empathogens (family of the cathinones, 5-APB, MDAI.), psychedelics (5-meo-dalt, 2-CB), dissociative like ketamine (N-ethyl-ketamine, methoxetamine), opioids (AH-7921, O-desmethyltramadol...) or benzodiazepins (etizolam, phenazepam...).

Many the NPS were discovered and tested by [Dr. Alexander Shulgin](#), who published his research (synthesis, dosing and comments) in two books and made it available on the Internet: [PiHKAL: A Chemical love Story](#) in 1991 which studies the derivatives chemical psychoactive derivatives of phenethylamine) and [TiHKAL: The Continuation](#) in 1997 which studies the tryptamines. Since then, other researchers, like David Nichols in his Purdue University laboratory, have expanded this research and developed more complex molecules.

These syntheses of molecules are then reproduced by clandestine laboratories (in China and on a smaller scale in India) which produce them and market them. The number of NPS is thus only limited by scientific research and the patents. NPS are mainly sold as powders and more rarely as tablets. Their presentation often does not have any relationship to the use of product (for example, “fertilizer for cacti”, “bath salts” or “incense”) to escape the laws of consumer protection. Synthetic Cannabinoids are often sold mixed with dry grass, crop residues, to imitate pot.

The majority of NPS is sold at a price varying from 8 to 20 Euros a gram depending on the site. This price decreases when the purchased quantity increases, and that can mean several kilos. There are several types of sites which sell this news drugs. Those intended for the informed users. They are plain. They post only the name of the molecule and its CAS number, without mention of the effects. To buy an NPS, it is necessary to get information about its effects beforehand on the user forums. There are also many more sites

that are more commercial, with attractive and “seductive” designs, which are targeting a younger public, specifically for the synthetic cannabinoids.

Unlike the first type of websites, fixed dosages are already established and the NPS are sold under commercial names (NRG3, Benzo Fury, synthacain, K2...) often without mention of the molecule, which can often vary. Lastly, there is the sector of the “deep Web”, with sites which are not referenced on search engines. One needs specific software (encoding) to access it. These sites are not specific to the sale of NPS, and some of them deal with all kinds of psychoactive products, legal and illegal. Like on EBay, these sites connect one buyer and a seller, and people pay in “Bitcoin”, an intractable virtual currency.

Legal aspect

For the most part, the NPS are not controlled. The producers and the businesses on the Internet are not controlled. Many the NPS are thus in one gray legal zone, neither authorized, nor prohibited. The laws which go back to 40 years are failing. Nevertheless, under public pressure, some governments are trying to classify these substances on the list of narcotics, but the majority of the time on very thin evidence: they oscillate between no response and a disproportionate response in criminalizing the use. In view of the increase in the consumption of cathinones derivatives (mephedrone, 4-MEC, butylone, 3 MMC...) and of the media hype, France for first time on July 27 2012 has used a “generic” classification that extends the criminalization of use to a group of substances belonging to one family. It also classified “spice” (synthetic cannabinoid, 4-F, 4-MA, the 2-CB) on the list of Narcotics

But given the dynamism of the NPS phenomenon, the responses by prohibition and criminalization have for main effect the displacement of the problem by encouraging the producers to create new molecules, with the risk that a replacement molecule will be more harmful than the preceding one².

² Emanuel Lahaye, Magali Martinez, Agnes Junior-Tairou, *Tendency* N°84,

“New synthetic products and the Internet” (OFDT)

Since their prohibition, the cathinones thus were replaced on the vendor sites by others phenethylmanines of the ABP family (5-APB, 6-APB, 5-MAPB...). In the same way, several synthetic cannabinoïds have replaced “spice” (JWH-018) These reports have pushed certain countries to test alternative legislations trying to put legal responsibility on the producers or the vendors of these substances rather than on the users:

1. Ireland (2010), Romania (2011) and Austria (2012) adopted new criminal laws, based on the protection of consumer, punishing the distribution, the sale and the unauthorized advertising of NPS³.

2. Certain countries (Austria, Finland, Netherlands, and The United Kingdom) applied the EU definition of a drug substance to NPS, allowing the national drug control agencies to control the importation, marketing and distribution⁴.

Outside Europe, New Zealand has been a pioneer. It decided to regulate the NPS industry by authorizing the substances which present a “minimal risk”: Before commercializing a product, the manufacturers will have to carry out an evaluation of toxicity on animals first and then on man and when marketing, they will have to provide precise safety health messages⁵.

The risks of use

The risks related to the use of NPS are the same as other psychoactive products. But because of their novelty and their particular legal status, they have specific risks.

³ OEDT - ANNUAL REPORT 2012: KEY POINTS

http://www.emcdda.europa.eu/attachements.cfm/att_190854_FR_TDAC12001FRC.pdf

⁴ HUGHES (B.) and WINSTOCK (A.R.), “Controlling new drugs under marketing regulations [For debate]”, in *Addiction*, Vol.107, n° 11, 2012, pp. 1894-1899

⁵ ““Legal Revolutionary” high law means state regulated drug market”. In *The new Zealand Herald*, 28 jul 2012
http://www.nzherald.co.nz/article.cfm?c_id=1&objectid=10822749

No hindsight

Contrary to drugs like heroin, cocaine or alcohol, we do not know the short term or long term effects of NPS

The constant renewal of the molecules does not permit to really test or research these products and the Harm Reduction groups do not have the time to spread clear and independent information. Gradually studies are being done, often well after the first uses and we learned for example that in England 51% of the mephedrone users have suffered from headaches , 43% of heart palpitations, 27% of strong nausea and 15% had the cold fingers turning blue.

No control

The other principal danger of the NPS is that they are not controlled. When you order a NPS on Internet, you never really know what you will receive, nor the percentage of active product (which can go from 0 to 100%), nor the amount of impurities contained in these substances if following a bad synthesis (example: the MPTP in the desmethylprodine), or even if it is the right molecule.

“Legal high”

The name of these NPS itself can make believe that they are legal, therefore without danger. However, it is far from being the case, as we have just seen.

For the harm reduction advices related to the NPS, see the attached flyer “How to reduce the risks with new synthetic drugs? » - To post in your centers! –



To go further!

Psychoactive <http://www.psychoactif.fr>

The research chemical on Psychowiki

<http://www.psychoactif.fr/psychowiki/Researchchemicals>

The forum on research chemicals:

<http://www.psychoactif.fr/forum/f26-Research-Chemicals-RC.html>

Tendances N°84, Les nouveaux produits de synthèse et internet, OFDT, 2013.