

FEDERAL RESEARCH PROGRAMME ON DRUGS

SUMMARY

NPS-care

Understanding New Psychoactive Substance (NPS) use in Belgium from a health perspective

Tina Van Havere (University of Applied Sciences and Art Ghent), Freya Vander Laenen (University of Ghent, IRCP), Charlotte Colman (University of Ghent, IRCP), Peter Blanckaert (Sciensano), Lies Gremeaux (Sciensano), Sarah Simonis (Sciensano), Anton Van Dijck (University of Applied Sciences and Art Ghent)

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PROMOTORS: dr. TINA VAN HAVERE (University of Applied Sciences and Art Ghent)
Prof. Dr. FREYA VANDER LAENEN (University of Ghent, IRCP)
Prof. Dr. CHARLOTTE COLMAN (University of Ghent, IRCP)
Dr. LIES GREMAUX (Sciensano)
Dr. PETER BLANKAERT (Sciensano)

RESEARCHERS: SARAH SIMONIS (Sciensano)

PRINCIPAL RESEARCHER:

ANTON VAN DIJCK (University of Applied Sciences and Art Ghent)

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WTCIII
Simon Bolivarlaan 30
Boulevard Simon Bolivar 30
B-1000 Brussels
Belgium
Tel: +32 (0)2 238 34 11 - Fax: +32 (0)2 230 59 12
<http://www.belspo.be>
<http://www.belspo.be/drugs>

Contact person: Aziz Naji
Tel: +32 (0)2 238 35 72

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1. Introduction

In this chapter, we wrap up all earlier chapters of the NPS care project in a concise way that aims to be comprehensible and comprehensive at once. What did we find in literature and what did we get out of exploring the knowledge and needs of both users of NPS and the professional health care field?

This final chapter is a summary of the results of all Work Packages and translates them into recommendations. The overarching framework consists of two axes: first, the health aspects of NPS use in terms of prevention, harm reduction and treatment and second, the local, i.e. Belgian, context. More specifically, *‘what can we learn from the different WPs in order to develop Belgian health care interventions to cope in an appropriate way with quickly changing developments on NPS?’* (BELSPO-DR/02/79, 2016).

2. Theoretical framework underpinning research conclusions

2.1. The nature and scope of the use of NPS

The object of this research, the use of New Psychoactive Substances (NPS), is scarcely documented in (inter)national research, partly for obvious reasons. Since the use of NPS is a relatively recent phenomenon, available scientific data are limited by default. This is especially the case when scrutinizing the health aspects of the issue (Griffiths et al., 2013). However, in the end we look at the use of (illicit) substances, something that is well documented in literature. Pointing out the differences between both, i.e. the use of NPS and that of ‘classic’ illicit substances, is not a straightforward matter as reflected in the needs (further below).

2.1.1. NPS in a nutshell

No formal definition of NPS is universally accepted (EMCDDA, 2016b). Throughout this work, we used the most widely cited description of NPS, namely: *‘A new narcotic or psychotropic drug, in pure form or in preparation, that is not controlled by the 1961 United Nations Single Convention on Narcotic Drugs or the 1971 United Nations Convention on Psychotropic Substances, but which may pose a public health threat comparable to that posed by substances listed in these conventions’* (EMCDDA, 2006). In short, NPS is a ‘catch-all’ term for substances that are chemically designed to mimic the effects (and thus including health risks) of traditional illicit drugs (cannabis, cocaine, etc.) while trying to evade international drug laws.

Since their emerging around 2005, almost 700 of NPS are reported in Europe (EMCDDA, 2019b). Such numbers attract a lot of (media) attention but do not reflect the nature and size of the NPS issue. At this point there is no reason to assume that the use of NPS is widely popular and/or problematic in most European countries, including Belgium. Country estimates of NPS use vary between 0,1 and 0,9% (UNODC, 2018b). Therefore, NPS related health problems have less to do with prevalence of use than with the obscurities surrounding the substances in question. Simply put, since most NPS are produced clandestinely and used only recently, we have no idea about their composition, effects and (acute/chronic) health hazards.

2.1.2. Conceptual issues: ‘newness’

The acronym NPS gives the impression of being a well-defined object (or class of objects) characterised by its novelty or ‘newness’. However, we found that the term resists easy definition. NPS such as mephedrone or GHB for instance, are not new but were synthesized ages ago. Looking at NPS as a well-

circumscribed entity singularizes something that is not. On the contrary, NPS are highly complex and diverse in number, chemical class, effects, forms, dosage, etc. Or, as Sumnall, Hamilton, and Monaghan (2017) put it: *'it is too simplistic to consider [NPS] as one class of drug, although they are often (...) discussed as such'*.

A consequence of such a singular view, is that it 'obscures difference' (M.J. Barratt et al., 2017); differences in 'routes into, through and out of use', for example (Soussan & Kjellgren, 2016). We propose to look at NPS as the fluid phenomenon of substance use that took off around 2008 and includes old, new, legal and illegal substances as well as newly emerged usage patterns and use (sub)cultures. Examples are MDPV (3,4-methylenedioxypropylvalerone) use in chemsex rituals or the use of ketamine as a 'club drug'.

2.1.3. Sign of the times

In our view, instead of seeing NPS as a separate class of substances we should understand it as the next chapter in the history of drug use; as a part of a wider drug landscape including traditional illicit drugs and legal 'human enhancement' drugs like steroids, melatonin, etc. (G. R. Potter & Chatwin, 2017). We can identify similarities with classic illicit drug use, such as NPS use among vulnerable groups as a symptom of socio-economic deprivation. We also see differences with classic illicit drugs, for instance in the case of experimental NPS use in online communities of 'psychonauts', active on user fora and sharing experiences through 'trip reports'.

In fact, the issue of NPS cannot be understood without acknowledging the bigger picture of a late modern society that is rapidly changing in terms of technological possibilities, information sharing and globalisation. The internet is a game changer¹ in this respect, influencing every aspect of our lives, including the way psychoactive substances are produced, traded and consumed (cf. recent study CRYPTODRUGS by Prof. dr. Charlotte Colman).

2.2. The influence of NPS on drug policy and legislation

The number of emerging NPS and the speed at which they enter(ed) the market, has put unrivalled pressure on the (inter)national drug control system. It is on a national level though that NPS have profoundly changed the landscape of drug policies (Wilkins et al., 2017). An increasing number of European countries rushed to revise drug laws or designed new ones. In Belgium, authorities opted for a new, generic legislation targeting NPS in September 2017 (BS/MB, 2017).

In practice, this means that all NPS became illegal in Belgium like in many European countries (UK, Ireland, Poland, Sweden, etc.). In theory, this comes down to stricter, prohibition-oriented approaches, which seems surprising given what Das and Horton (2019, p. 1489) describe as 'the welcome shift in recent years towards more humane drug policy and support for decriminalising drug use and possession by among others, the UNODC and INCB'.

What this evolution means to the market and to the use of NPS itself, has been widely criticised by some scholars (Beltgens, 2017; O'Hagan, 2019). Stricter legislative control has shown to be a key driver for NPS, resulting amongst others in increasing prices and substance displacement (Kavanagh & Power, 2014; Neicun et al., 2019). In this sense, the political/legislative tools developed to curb the flow of NPS are at the same time the very stimulants of NPS innovation; a paradox described by Measham and

¹ We found this term coined by O. Corazza (2017).

Newcombe (2016, p. 579) as *'running with the hare and hunting with the hounds'*.

3. The user's perspective on NPS

3.1. Who are the users of NPS and what do NPS mean to them?

3.1.1. Characteristics of the user's sample

The study sample of 45 interviewed NPS users is heterogeneous in several ways. Overall, we distinguished three user's 'profiles', based on knowledge/experience of people and the nature of NPS use. The majority of the interviewed NPS users are **experienced users**. They stand out by their expertise and knowledge about many NPS. Well-informed, they apply harm reduction measures and use in a social setting. Their entourage also functions as a source of information and informal control. The **occasional users** typically limit their use to few NPS and to specific occasions such as parties or nightlife settings. They control their use of NPS, which function mainly as a 'social lubricant'. The smallest category are the **deprived users**. Substance use is omnipresent but should be considered in a wider, vulnerable socio-economic context. NPS use is interwoven with the use of alcohol, cocaine, etc. and can be considered ancillary or 'episodal'. A limited number of NPS are used (e.g. GHB, ketamine) by the latter group.

3.1.2. User's semantics and role of NPS

The definitional inconsistency of the term NPS is reflected in the interviews with users. None of the respondents uses the term 'NPS'. Instead, they refer to 'designer drugs', 'RC's' (Research Chemicals) or – in most cases - simply (short)name the substance they are talking about (e.g. 'ket' or ketamine).

Overall, the interviewed users paint a complex picture of their NPS use, attributing different functions to different substances depending on what they look for and on the (social) context they find themselves in. In practice, this means that virtually all interviewees do not limit themselves to the use of one substance and all of them are familiar with the 'classic' counterparts of NPS. The idea that NPS will replace traditional illicit drugs is not supported by our respondents (Semków, 2019; J. B. Zawilska, 2015). To them, NPS are not replacing but rather complementing existing drugs. They see NPS as another array of drugs to choose from; sometimes advantageous to, sometimes a far cry from 'the original' (a classic illegal drug).

3.1.3. Motivations for NPS use

Why do people use NPS? Our findings confirm those of other studies: for reasons no different than other psychoactive substance use (Kettner, Mason, & Kuypers, 2019; McLeod et al., 2016; Soussan & Kjellgren, 2016). The most cited internal motivation of our respondents is 'pleasure' ('because it is fun') followed by reasons such as increasing energy, social bonding and mind exploration ('altered states of consciousness'). Other users mention pain-relief, to relax or to cope with everyday life.

An important external motivator has to do with 'more convenient use' of NPS, compared to classic drugs, mainly conditions related to the easy access via the online market. A subgroup of users sources their products online, stressing perceived advantages of anonymity, quality or price and a sense of safety they do not find in street markets.

To conclude, for a majority of NPS users, positive internal motivations spark their use. NPS and other drug use occurs in a social context, often in nightlife, at specific occasions and to counterbalance a stressful working life. Although some of them have known problems, often because of alcohol use, most

of our respondents' use of NPS can be considered integrated and/or recreational. The deprived users are characterised by more problematic use: they experienced addictions, contact with justice, stigma and use classic illicit drugs in combination with NPS, dependent on the availability. Their most important motivation to use NPS (or other drugs) is coping with daily life and responsibilities.

3.2. Guinea pigs

When asked what they are concerned about, NPS users gave a recurring answer: the scarcity of information about the substances they use (notably composition and/or quality) and the unknown effects of many NPS on their health, particularly on long term. They are aware of the risks involved in substance use and they actively try to minimize those risks. However, in the end they express the feeling of being a '*guinea pig*' when it comes to using NPS.

In practice this means that 75% of the sample tries to inform itself to the extent possible, looks for and shares information online as well as among friends and has developed harm reduction strategies. Examples vary from 'start with the smallest dose possible', 'never use alone', over 'do not combine with alcohol', 'having a sober driver', to 'use your own clean needles or other equipment'. The deprived users get their information through friends, however, they don't adopt health or harm reduction measures.

3.3. Health needs of the NPS users

Before outlining the primary needs of the interviewed NPS users along the prevention/care continuum, it is important to point out that for many of them, wider social and policy considerations were the first things that came to mind. More specifically, society's or public opinion on drug use (stigma) and current NPS (drug) policy and legislation.

3.3.1. The social and legal (policy) aspects of NPS use

Many users showed to be preoccupied with the biased public perception of substance use and the attached stigma. In their experience, stigmatizing users results in specific, added harms. It creates a barrier to seeking help when needed or it can compromise people's future because of a criminal record. The most vulnerable users encountered, most notably, experience stigma as a daily reality that negatively influences many aspects of their life. According to the interviewees, a public debate focused on the normalisation of drug use, including NPS use, is essential. This is a debate which cuts the perceived link between drug use and 'deviancy' based on rational, evidence-informed information.

Virtually every user we spoke to has a negative view of Belgian drug policy and drug laws, including the generic one. Prohibition policies are labelled 'counterproductive', 'unethical' and a 'free pass' for criminal organisations. The idea that they are lawfully viewed as 'criminals' is unacceptable to our sample of NPS users. In summary, a large majority of NPS users proposes a change in drug and NPS policy, including regulatory approaches. They call for a redistribution of competences to health and social authorities to guide such policies.

3.3.2. NPS targeted needs concerning prevention according to the users

Based on the interviews with NPS users and on the outcomes of the focus group we conducted with users, prevention needs/methods oriented towards NPS can be summarized in the following principles. Firstly, most users find that prevention interventions tailored to NPS are quasi non-existent and **need developing**. Secondly, users stress a general principle when organizing prevention initiatives based on

accepting the reality of NPS use, offer **objective information** (i.e. including positive effects/benefits) while stressing the risks and uncertainty about health effects of many NPS. Thirdly, and specifically when young people are a target audience, it is important to address the **wider social context** (e.g. pointing to phenomena such as 'peer pressure' or 'group conformism').

3.3.3. NPS tailored needs of harm reduction nature according to the users

Harm reduction is overall considered crucial, specifically when dealing with NPS due to their often unknown source and composition. More specifically, the NPS users we interviewed as well as the ones present during the focus group are looking for tangible, **practical and useful harm reduction tips** when it comes to using different NPS (e.g. interactions between different substances, sound information about the health risks of NPS and how to minimize them, etc.).

However, the one need with a harm reduction character that prevails for virtually all NPS users we spoke to during this project is the implementation of **drug checking services**. Quality control and substance (composition) information through drug checking interventions is felt to be critical from a health point of view. Such services should operate preferably on various locations and should also be offered on locations where NPS use is more prevalent (e.g. at festivals).

3.3.4. Treatment needs related to NPS use according to the users

Suggestions at this point mostly originated in a minority of our sample, i.e. people having (had) problems due to their NPS use. For issues such as addiction, users highlight the similarity of things (whatever the substance involved) while for others, NPS use requires specific needs in the treatment sector. These specific needs can be summarized as: a lack of knowledge on NPS in existing specialized services, suggesting **training of staff**, non-identification with clients using classic drugs pointing to the need for **tailored trajectories** and/or services and finally, several interviewed users as well as focus group members suggested exploring the **employment of people with lived experience** (i.e. NPS use) in care services.

4. The use of NPS through the eyes of the Health Care Professionals (HCPs)

4.1. Inventory the main needs in terms of NPS tailored prevention, harm reduction and care

To incorporate the views and needs of the professional field (prevention, harm reduction and care), we recruited 31 professionals (especially from specialised prevention, harm reduction and treatment organisation) for conducting NGTs, assigning them to inventory the initiatives that are lacking when it comes to NPS (use).

The most important needs revolve around the following themes:

- Increasing the weight of harm reduction in drug and NPS policy;
- Reforming drug/NPS legislation to minimize harms resulting from criminalizing substance use;
- Stimulate scientific research into the NPS phenomenon;
- Interaction between professionals and NPS users, including involvement of the latter in NPS policy;
- Formation and/or training about NPS for the health care field (from general to specialized);
- Collecting and updating sound information on NPS use, potentially integrated in an online

database;

- Developing a drug/NPS checking network as a harm reduction measure and monitoring tool.

4.2. Ranking of the inventory of professional needs according to importance

4.2.1. The NPS care survey

After setting up a list of 21 specific professional needs, we inserted the list in a short, online survey for distribution in the broader health care field. The questionnaire was set up on an anonymised basis, asking no identifiable data and ultimately sent out by our project partners.

We used the survey as a tool to end up with a ranked inventory. In other words: respondents collectively attributed a score to each of the items to end up with a ranking of the most important professional requirement up to the least important one.

4.2.2. The sample of survey respondents

We received a total of 272 valid answers (147 French/125 Dutch) given by an equal proportion of 50% women and men, professionally active in (non-)specialized care, harm reduction or prevention. Roughly one third of all respondents is older than 45 years, another third is between 34 and 45 years old. Together, the provinces of Antwerp and Brussels (capital) are the professional home to nearly one in three respondents. Most respondents, i.e. 171 (63%) individuals, turned out to be specialized HCPs. Half of them work in treatment-, 30% in harm reduction- and 20% in prevention settings.

4.2.3. The ranked list of professional NPS-targeted needs in prevention, harm reduction and care

All valid returns basically replied to two questions: firstly, they selected five critical needs and secondly, they ranked these five by scoring each one, based on (personal) importance. We deconstructed all 272 answers according to each of the 21 needs, resulting in the following ranking of the 10 primary NPS-targeted requirements of the (surveyed) health care sector.

Table 6.1. Results of the NPS care survey in terms of importance of needs

RANK	NEED	RESPONDENTS (%)	SCORE (Σ)
1.	<i>Decriminalisation of use and possession of drugs</i>	93 (34)	335
2.	<i>Development of drug checking interventions (easy access, quick, anonymous)</i>	96 (35)	309
3.	<i>Exchange of knowledge, info and practice on NPS among professionals/services</i>	101 (37)	307
4.	<i>Offering tailored formation on NPS to (non) specialized professionals</i>	93 (34)	276
5.	<i>Online information database on NPS (user friendly, fast, updated) for everyone</i>	85 (31)	256
6.	<i>Forum for dialogue & interaction between professionals and NPS users</i>	76 (28)	250
7.	<i>Launch non-political, fact-based public debate on NPS and drug use</i>	69 (25)	224
8.	<i>Stimulate NPS user participation & peer support in policy, practice and research</i>	77 (28)	215
9.	<i>Scientific research into NPS on products (Drug), users (Set) and context (Setting)</i>	67 (25)	197
10.	<i>Medical, (psycho)pharmacological, etc. information hub on NPS for clinical HCPs</i>	69 (25)	195

We mention the number of respondents who selected each need/the frequency of votes for each need

or in other words, to what extent an idea is shared. Secondly, we summed all scores for each need and based the ranking above on these scores.

4.3. Primary needs related to NPS use according to the health care professionals

A rough comparison between the inventory of professional needs as determined by a limited number of HCPs and the ranking of the inventory by 272 surveyed professionals, reveals similarities in high-priority issues. The most important NPS targeted needs for the prevention, harm reduction and care field, are the implementation of drug checking interventions and a change in policy and/or legislation on the matter. As illustrated above, both issues are highly important to the users of NPS as well.

Based on the insights of both the NPS users and the HCPs we questioned during this study and on data presented in scientific literature, we can formulate a number of recommendations or health-oriented interventions with regard to the use of NPS in our country.

5. Recommendations

1. Selective and indicated prevention should focus on all substance use, including legal substances, based on objective information and combined with a non-judgmental attitude.

NPS-tailored prevention was addressed throughout this project. The users of NPS expressed more concerns about this topic, both in interviews and the focus group and this was often triggered by personal experience. A summary of their thoughts:

- NPS/drug prevention requires knowledge combined with a non-judgmental attitude;
- Users and HCPs propose a 'just say know' over a 'just say no' approach. Objective information, including positive/beneficial effects is dubbed 'critically important' by both groups;
- Drawing attention to the incongruence between legal status and potential harm of substances, thereby focusing equally on alcohol, tobacco, medication, steroids, etc. (Lievens et al., 2017);
- Explaining the generic law on NPS is necessary as well as the term 'legal highs' and its connotation of innocence (see also O. Corazza, Demetrovics, van den Brink, & Schifano, 2013);
- Exploring the potential of online prevention approaches.

Several interviewees were subjected in high school to prevention interventions which exclusively focused on the negative aspects of drug use. EMCDDA (2017a) refers to such approaches as 'ineffective but popular'. There is more evidence for prevention narratives that tell the whole story and adopt a wider framework based on social skills and general behaviour.

2. Implementing and developing drug checking services as a monitoring (pharmacovigilance) and harm reduction tool for NPS and other drugs, embedded in existing European networks.

The implementation and development of drug checking services turned out to be the most important theme according to professionals taking part in the NGTs. The survey respondents ranked it as the second most important need. Drug checking interventions are initially understood by HCPs as building blocks of an overarching prevention and harm reduction policy. In other words, such projects should be **accompanied by information/education and counselling**. Secondly, they can function as monitoring tools to collect information about a drug market for public health purposes (pharmacovigilance). This function applies particularly to NPS due to their novelty and often unclear composition.

Drug/NPS testing points were also the first thing interviewed users thought of when asked what their needs are. The focus group of users unanimously supported drug checking as well, as a harm reduction measure of high urgency. According to the group, testing services should meet the following conditions: anonymous and easily accessible (low threshold), fast and quantified results and not limited to locations associated with existing care or prevention services in order to reach a maximum of users (including in recreational settings such as clubs, free parties, etc.). The cost for users remained open to debate: paying for such services is evident to some, to others it is not.

In a report commissioned by the EMCDDA, Brunt (2017), among others mentions the following considerations in support of drug checking services as a health promotion/harm reduction strategy:

- It reaches the - hard to reach - young recreational users;
- It is appreciated by users, resulting in a willingness to participate in a dialogue about prevention

and harm reduction with by peers and professional staff²;

- It is believed that the personal contacts are more effective for behavioural change
- 25 to 100% of users discards its drugs/NPS if their composition proves harmful;
- Drug checking systems do not increase (prevalence of) drug use and/or incite use among non-drug users³.

Ultimately, the EMCDDA describes 'early warning systems and monitoring of substances being consumed, including drug-checking services'⁴ as good practice in nightlife settings.

Based on these arguments and knowing that drafting a legislative framework as well as technical requirements, operational costs and staffing of NPS/drug checking sites are big (financial) hurdles to take, we propose a step-by-step approach. A first step can be the design of a legislative framework and a system of funding (cf. free service is the best choice to avoid the threshold). Subsequently, a national network of pharmacovigilance can be realized (c.f. the Drugs Information and Monitoring System (DIMS)⁵, allowing Belgian practice to become part of international initiatives such as the Trans European Drug Information (TEDI) network⁶ and enables us to evaluate these kinds of interventions.

3. Specialized treatment services shift to encompass offer for NPS users

The evolution of NPS use has fuelled the debate on specialized care services for NPS use. Some support the adaptation and implementation of NPS treatments needs in current specialized treatment while others favour the creation of new, NPS-only treatment services (O Bowden-Jones, Fitch, Hilton, Lewis, & Ofori-Attah, 2014; Tracy, Wood, & Baumeister, 2017). Still, a combination of both ideas seems the realistic option (Campbell, O'Neill, & Higgins, 2017).

Throughout the NGTs, we found various indications pointing to the need for specific care interventions. The consensus reached on the importance of developing NPS tailored psychosocial interventions (NGT1). At the same time, the subsample of interviewed users that actively looked for help in the context of its NPS use (at some point in life) made the following suggestions:

- The feeling of being more knowledgeable on NPS than the caregivers;
- Being treated as an outcast, by staff and by other clients (so called 'intra-group stigma');
- Underlying non-identification with existing services (c.f. O Bowden-Jones et al., 2014; Pirona, 2017).

However, we should not forget that most NPS-users also use other classic illicit drugs. Therefore, we propose and integrated offer. We based our recommendations on the recommendations drafted by Ralphs and Gray (2018). Translated to the Belgian context, we withhold the following elements:

- Developing a custom and/or targeted approach by existing services to include NPS using groups, starting with training (part of) the staff to detect and access people with NPS related problems;

² See also Van Havere, Tutenges, De Maeyer, Broekaert, and Vanderplasschen (2015)

³ Annemieke Benschop, Rabes, and Korf (2002)

⁴ See http://www.emcdda.europa.eu/best-practice/briefings/nightlife-festival-and-other-recreational-settings_en

⁵ <https://www.trimbos.nl/kennis/feiten-cijfers-drugshandel-drugsincidenten/monitoring-drugsmarkt-in-nederland-dims>

⁶ <http://www.safernightlife.org/tedi>

- Enhancing skills in terms of use of technology is essential. Examples: monitoring internet and darknet to gain insights into nature, price, supply etc. of NPS (Fletcher, Tasker, Easton, & Denvir, 2015) (cf. SCANNER project of Sciensano which is recently implemented);
- Focusing on (joint) problems of mental health and NPS use. Several interviewed users confirmed this, struggling with mental health issues as it is, only to find them worsened by prolonged NPS use;
- From a broader perspective, the integration of services (a so called 'multidisciplinary approach') could be improved (mental health, sexual health⁷, housing organisations, etc.) including recovery oriented treatment.

Finally, exchanging information and practices among colleagues and services can save time and build experience. Scherbaum, Schifano, and Bonnet (2017) add the need for constantly updated information (cf. infra).

4. Offering general 'on demand' NPS oriented information to professionals and advanced training to frontline and specialized HCPs according to specific needs.

NPS targeted formation or training was omnipresent during the NGTs and (professional) survey respondents ranked it as the fourth most important need. In an Italian study from 2013, more than 60% of addiction doctors and specialized psychiatrists rated their expertise on NPS as 'poor' or 'basic' (P. Simonato et al., 2013). Owie et al. (2017) present comparable conclusions from a survey among psychiatrists in the UK. The same goes for a group of emergency nurses and physicians in London (Wood, Ceronie, & Dargan, 2016).

Therefore, we would present an online or face-to-face course in a modular form, from introductory information on substances to acute and chronic harms of all NPS, qualitative data on market and culture of use, etc.

- We refer to a tool developed by Public Health England (PHE) for people active in general or specialized youth work, education, care, etc., called '*Resource Pack for Informal Educators and Practitioners*' (Home Office, 2016);

Further inspiration can be found in the NEPTUNE project (UK) and its 'guidance for clinical management of NPS users', specifically the e-training package⁸. Translation into French and Dutch is preferable.

5. Development of a health-oriented approach of NPS (drug) use in detention settings, focusing on prevention and harm reduction.

NPS are believed to be popular among detainees, among other because they are not picked up by existing screening instruments (EMCDDA, 2018b; Norton, 2015). Unlike in countries such as the UK, in Belgium only anecdotal reports document NPS use in prisons (Duke, 2019; EMCDDA, 2018b).

⁷ An example is the REACH clinic (UK), a partnership between the Hathersage Sexual and Reproductive Health service and an integrated drug/alcohol service <https://www.thenorthernsexualhealth.co.uk/Chemsex-Support>

⁸ see <http://neptune-clinical-guidance.co.uk/>

After French-speaking HCPs addressed the issue of drug use in detention during the NGT's, almost a quarter (23%) of survey respondents selected the need 'prevention and harm reduction policy in prisons'. Also, two participants of the Flemish focus group of NPS users who had been detained in the past, stressed the importance of collaboration between (specialized) care 'outside' and 'inside'. They criticised the lack of a uniform policy across prisons on substitution treatment (cf. also (F Vander Laenen et al., 2013)), among other things and the group expressed its support for harm reduction measures in prisons.

Adding to this advice, we would like to cite a good practice/response option recommended by the EMCDDA (2018b): '*Developing support and training to empower professionals in existing services to recognise how their skills and competences can be applied to responding to problems associated with NPS*'⁹. We looked at specific interventions applied in the UK (see PHE, 2017) and suggest developing training modules for prison staff. Inspiration is found in the 'NPS in prisons; a toolkit for prison staff', developed by Public Health England (2016) and covering issues such as product information, administration modes and effects of NPS and guidance for interventions in case of NPS related problems, based on the principle 'treat what you see' .

Applied to our country, we propose to embed this tool in a broader training, covering classic drugs as well, and integrated in a prison-wide policy focused on prevention and harm reduction messages and interventions. We follow the WHO and EMCDDA in their most important responses to the incarcerating of PWUD: alternatives to punishment, equivalence of care inside to that provided in the community¹⁰ and continuity of care between community and prison on admission and after release (EMCDDA, 2018b; Vandeveld, Vander Laenen, Vanderplasschen, & al., 2016).

6. Stimulate attention to sexualized drug/NPS use in research and in the health care field.

Research shows a higher prevalence of NPS use in groups such as Men who have Sex with Men (MSM) and the chemsex scene in general (Desai, Bourne, Hope, & Halkitis, 2018). Chemsex is associated with high-risk drug and sexual behaviour (injecting, unprotected sex, sex with multiple partners) potentially resulting in hospitalization, overdoses, Sexually Transmitted Infections (STI) and HIV/HCV-infection (EMCDDA, 2017a).

We recommend creating tools to reach and address these groups, for instance promoting harm reduction tips on practices such as 'slamming'¹¹. An example is a website like 'Monday / Friday'¹² or Exaequo with their network on chemsex¹³ . Furthermore, information on prevention/treatment of bloodborne viruses and STI's should be offered (including screening possibilities). Finally, citing Macfarlane (2016), 'to provide training to sexual health services and specialist drug centres' can be part of the practice.

⁹ http://www.emcdda.europa.eu/best-practice/briefings/responding-new-psychoactive-substances_en

¹⁰ Which is also in accordance with the Belgian Basic Law explicitly that determines the right to healthcare in detention and care equality between the community and the prison context (Vander Laenen, F. & Eechaut, V. (2018). Gelijkwaardigheid van de gezondheidszorg in detentie: de wet is er, nu nog de toepassing, Fatik, 35(160), 3-6.)

¹¹ Definitions of 'slamming' share three characteristics: injection, sexual party, psychostimulant drugs (based on Giraudon, Schmidt, & Mohammed, 2018).

¹² <https://www.fridaymonday.org.uk>

¹³ <https://www.exaequo.be/en/hauptnavigation/gay-life/chemsex>

7. Reduction of morbidity/mortality in (NPS) users of opiates and synthetic opioids by developing initiatives of naloxone distribution.

Synthetic Opioids (SO) target similar receptors as their classic counterparts (e.g. heroin) but tend to be more potent, significantly increasing the risk to overdose (Drummer, 2018). SO, including new fentanyl analogues, remain a concern for the EMCDDA (2018a), with ten notifications in 2017. In Belgium as well, recent alerts from the Early Warning System (EWS) involved U-47700 and fentanyl analogues (Blanckaert, 2017). Besides this, we encountered the use of both these substances in our research sample of interviewed NPS users. Against this background and based on the following arguments, we recommend the uptake of so called 'Take Home Naloxone' (THN) programmes in our country making it possible to provide this antidote to specific groups of users

Naloxone is medication used to temporarily reverse the effects of any opiate/opioid due to its antagonist properties. It is non-toxic, safe to use and has no side- or adverse effects (Peprah & Frey, 2017). 'Take home' programmes consist of training of PWUD by professionals, followed by distributing naloxone to PWUD and their close social environment (friends, partner, social worker, etc.). The rationale is to prevent overdoses by people likely to be present at such an event, who recognize the danger and are able to administer an antidote (EMCDDA, 2016e). Finally, numerous studies confirm the benefits of naloxone projects, including saving lives of PWUD using 'classic' or new opioids (McAuley, Aucott, & Matheson, 2015; Naumann et al., 2019).

Our recommendation is supported by the fact that the EMCDDA (2016e) includes THN projects in her best-practice portal, listed as 'likely to be beneficial'¹⁴. Furthermore, in the context of the focus groups, both professionals and NPS users were in favour of implementing analogue initiatives in Belgium.

In conclusion, the pilot THN-project, initiated by the GIG-project¹⁵ at Free Clinic in Antwerp and presented during the focus groups, is a valuable resource to build upon. At present though, clouds of legal nature cover the project, illustrating the need for a clear legislative framework and cooperation between justice- and health care fields. We suggest evaluating and potentially replicating GIG's pilot project throughout the country, with adaptation to local contexts, as is essential for (other) harm reduction strategies (F. Vander Laenen et al., 2018).

In 2020, the SO –PREP study started, funded by the European Commission, to gain a better understanding of the current synthetic opioids situation in Europe. During this study, the SO health system response capacity in Europe will be evaluated and a model SO preparedness as well as a Toolkit for Member States will be developed.

8. Realise involvement of NPS users in policy making

User activism has historically been an important element in the development of drug and/or harm reduction policy (Rhodes & Hedrich, 2010). Despite the 'lagging behind' (Greer & Ritter, 2019) of user's participation to policy, the importance of including 'lived experience' in policymaking as a primary source of knowledge seems to gain acceptance (Head, 2016; Monaghan, Wincup, & Wicker, 2018; F. Vander Laenen, Favril, & Decorte, 2016). In a current article on evidence based strategies, we read that

¹⁴ See http://www.emcdda.europa.eu/best-practice/briefings/reducing-opioid-related-deaths_en

¹⁵ The GIG acronym points to 'Health Promotion and Injecting Drug Use'.

'the voices and experiences of PWUD are crucial' and that *'stigma and discrimination deter health care access (...) and reduce treatment entry/retention'* (Degenhardt et al., 2019, p. 1492).

Professionals taking part in this study strongly seek dialogue with NPS users and see it as an added value to involve them on different levels, e.g. in research, practice and policy. NPS user involvement ended up as the second most important theme in the NGTs and survey results confirmed the weight of this topic. Particularly the novelty of NPS and their use, has made professionals aware of the benefits 'first-hand experience' could offer.

- To answer the request of HCPs for a 'platform for dialogue exchange' with NPS users, we suggest turning to an online solution. Interesting work has been done by Rosino and Linders (2015).
- As inspiration for Belgium, we return to 'Psychoactif' (also illustrated during focus groups)¹⁶ who mention as a goal on their website 'to transfer information to the professional health care field'.

In general, we align with the EMCDDA (2017a), that recommends user involvement in prevention and care interventions and in their research-based guidelines. We look to countries such as Australia, Sweden or Finland in this respect. In Finland, a national network of frontline workers, including HCPs, policy makers, NGOs and a user's organisation share expertise on a regular basis (Leppo & Perala, 2009). In Ireland, a new health led 'National Drug Strategy' was presented which took shape through a 'cross-discipline committee', including family support network and representatives of PWUD (Comiskey, 2020).

9. The 2017 generic legislation on NPS: raising awareness among professionals and users

Belgium, just like some other European Member States has opted to develop a legislative response to the rapidly evolving NPS market (Emcdda, 2016d). Belgium opted to list defined 'generic' groups of substances, rather than defining individual drugs as done previously.

The Belgian generic legislation on NPS cannot be considered acquired knowledge among professionals and users. Therefore, we recommend issuing more information about its content and implications. Targeting HCPs, this could form a specific topic in (online) formation or training. To inform users, we think of leaflets and online initiatives.

Based on our population samples, the need to raise awareness about the current illegal status of all NPS appears to be most urgent in Brussels and Wallonia. We noticed a knowledge gap between the Flemish speaking and French speaking professional groups who took part in the NGTs. Flemish professionals were without exception well-informed about the change in NPS legislation, including its underlying rationale. The opposite is true for French-speaking professionals: in two out of three NGTs, all members turned out to be unaware of the Royal Decree of 2017. A similar conclusion surfaced from the French speaking sample of interviewed users.

We stress that these findings only apply to the samples of users and professionals we questioned and cannot be generalized. Nevertheless, we feel that the generic legislation deserves more explanation to HCPs and users of NPS, given its unique character, potential effects and the complex legal questions surrounding it (see also J. van Amsterdam et al., 2013).

¹⁶ Psychoactif is a French self-support organization of users who built an information site receiving 23 000 visits a day in 2017. <https://www.psychoactif.org/forum/index.php>

10. Monitoring and evaluation of the 2017 generic law on NPS

The Belgian generic NPS law can arguably be considered a step towards prohibition by exactly defining which compounds are illegal, thereby including most psychoactive substances and abandoning a case-by-case 'risk assessment' of each potential new drug (J. van Amsterdam et al., 2013). It goes without saying that this innovative generic law enables law enforcement actors to better respond to this rapidly evolving NPS market from their point of view. At the same time however, scientific evidence stresses the potentially unintended consequences of prohibitionist laws and several European policy practices (UK, Ireland, etc.) that rely on such laws, include specific, well-described exceptions and/or amendments.

The Belgian law (Royal Decree) has the benefit of clarity and its rationale, i.e. keeping legislation up to pace with rapidly emerging NPS, is relevant. The implementation of the generic law though, is riddled with concerns; not in the least of a constitutional nature (Beltgens, 2017; Nutt, 2011). An example is the uncertainty about whether a future substance is subject to the law or not, potentially violating the right to 'due process'¹⁷. Other (public health) concerns are illustrated after the banning of mephedrone in the UK: use did not significantly decrease, prices increased and purity decreased (Beltgens, 2017). One thing we did find in our sample is that laws do not affect the (motivation for) use of the interviewees. 96% of our sample admits that the legal status of a drug is not related to current use (intention). This observation is not new and has been illustrated in many studies (a.o. Doessel & Williams, 2008; MacCoun, 1993; S. Taylor, Buchanan, & Ayres, 2016).

Based on these arguments, systematic monitoring of the situation is necessary to ensure an evidence-based public health response tailored to the needs and context of Belgian users. Scientific evaluation of the effects of the generic NPS law on drug demand and supply reduction is desirable. Does the Decree succeed in countering production and use of newly emerging drugs? Or will it trigger other, more complex NPS that do not fall within its boundaries? Two of many questions that need answering.

11. The generic legislation on NPS in Belgium should incorporate amendments that aim to avoid added harms resulting from criminalizing possession of NPS.

A considerable body of literature has stockpiled on the costs, adverse effects and health hazards of a solely prohibitive drug policy; both on drug users and on society (MacCoun, 1993; Nutt, 2011). Recently, also United Nations (UN) agencies called for a decriminalisation of drug use and -possession for personal use based on the principle of proportionality (Degenhardt et al., 2019). In all phases of our study as well, a similar debate appeared at the forefront. To professionals and NPS users, public health and law enforcement efforts can be complementary, provided the latter mainly target the supply side of the market while NPS possession for personal use are *de facto* exempted from criminal law.

The item of decriminalising possession of NPS was brought forward as a high priority need in four of five NGTs. Subsequently, the broader professional field added weight to the issue by ranking 'decriminalisation of possession of drugs'¹⁸ as the most urgent need in the survey. Among NPS users, alternative drug legislation was arguably the most debated topic. According to all interviewed users, a change in policy is a priority based on their view that the harms resulting from criminalizing the user

¹⁷ "anyone whose action may be subject to criminal sanction ought to have clear notice of what is and what is not forbidden" (cited in Beltgens, 2017)

¹⁸ Although use as such is included as a punishable offence in the Belgian Drug Law.

outweigh the harms from substance use itself. A consensus on this topic was also reached in the user's focus group. In the end, (de facto) decriminalising possession of substances was considered realistically achievable, analogue to policy practices in various European countries (UK, Poland, etc.).

As a recommendation, we recognise that a decriminalisation of possession for personal use is an issue to be evaluated by legislative experts and to be part of a (political) debate. All technical possibilities at this point - without jeopardising adherence to international treaties and European regulation - should be considered.

12. Develop epidemiology of NPS use through triangulation of methods/data

Three NGTs reached a consensus on the importance of epidemiological data on NPS use. However, presently it is sheer impossible to produce quantitative data on NPS use in the general population due to low prevalence levels along with aspects of terminology (Korf et al., 2019). Other challenges are the varying names/products and the rapid (dis)appearance of NPS (Young, Dubeau, & Corazza, 2015). Therefore, at present a 'triangulation' of methods is advisable to obtain maximum clarity on NPS use in Belgium (Wood & Dargan, 2012). The EMCDDA (2017b) for instance, mentions:

- Online techniques and internet monitoring (e.g. online discussion fora, market sales, etc.);
- Monitoring through drug checking;
- Proactive approaches such as residue testing (e.g. Escape project¹⁹) and outreach work;
- Wastewater analysis and pooled urine collection (Bijlsma, Celma, López, & Hernández, 2019);
- Convenience sampling, in situ or in subgroups (e.g. festivals) (Sumnall et al., 2013);

Acknowledging the limitations of each method, we call for attempts to integrate available data sources on the use of NPS in Belgium to the extent possible and explore further research and monitoring tools, including online methodology (e.g. by Sciensano).

13. Extend monitoring capacity of the Belgian Early Warning System (EWS) by collecting all data on NPS related intoxications in emergency settings (emergency department hospitals, crisis detox services, poisons centre, etc) and presenting them for consulting by clinical professionals.

Several demands of -predominantly- professionals gave rise to this recommendation. This recommendation is based on:

- A distinct, recurring question from medical/clinical professionals (specialized doctors, emergency physicians) for tailored information on NPS, including practices (c.f. NGTs);
- The fact that 'exchange of knowledge, information and practice on NPS' came out as third most important survey result;
- The substantial attention given in one NGT to expanding the Early Warning System (EWS);

We suggest the possibility to link the need for well-circumscribed clinical information and practice related to NPS (use) with the existing EWS. Concerns of economic (cost) and practical nature (the network already exists) add to this. A starting point can be found in the work that has been done in

¹⁹ Method focused on injecting drug use by analysing the content of used syringes in six European cities, for example collected in containers or harm reduction services (see, EMCDDA, 2019a).

the context of the Euro-DEN network (e.g. by the University Hospital of Ghent) that aims to register recreational substance use in hospital admissions (Dines et al., 2015). Finally, a professional online platform is needed that makes it possible to consult and/or to insert clinical information and practices on NPS use in Belgium. Speed, (all-)inclusion and continuous updating should be key features. This could be added to the platform of EWS that is being hosted by Sciensano.

14. Developing research on (long term) health risks of NPS use

Unsurprisingly, stimulating more research on NPS is generally cited as an urgent priority (EMCDDA, 2017a; UNODC, 2018a; Zanda & Fattore, 2017). After all, the lack of knowledge about NPS seems a logical consequence of their novelty and complexity in terms of number/diversity (Peacock et al., 2019).

The need for information on NPS appeared to be essential in all parts of our study as well, translated into advocacy for research by both users of NPS and professionals. 25% of professional survey respondents selected 'scientific research' as a highly important need. Predominantly the experienced users of NPS, mention the constant search for more insights into the functioning and adverse health effects of different substances. Overall, the main information need of all NPS users relates to (adverse) health consequences of NPS use, notably in the long term. In practice this means further developing research on NPS, i.e. toxicology, (psycho)pharmacology, etc. in first instance and combining them with clinically acquired data (Green & Nutt, 2014).

References

- Abdulrahim, D., & Bowden-Jones, O. (2015). *Guidance on the Clinical Management of Acute and Chronic Harms of Club Drugs and Novel Psychoactive Substances*. Retrieved from London: <http://www.Neptune-clinical-guidance.com>
- Abdulrahim, D., & Bowden-Jones, O. (2016). Harms of Synthetic Cannabinoid Receptor Agonists (SCRAs) and Their Management. London: Novel Psychoactive Treatment UK Network (NEPTUNE), 2016. In.
- Adley, M. (2018). <http://www.thedrugswheel.com/?page=about>. In.
- Alexandrescu, L. (2017). NPS and the methadone queue: Spillages of space and time. *Int J Drug Policy*, 40, 50-56.
- Allen, J., Dyas, J., & Jones, M. (2004). Building consensus in health care: a guide to using the nominal group technique. *British journal of community nursing*, 9(3), 110-114.
- Archer, R. P., Treble, R., & Williams, K. (2011). Reference materials for new psychoactive substances. *Drug Testing and Analysis*, 3, 505-514. doi:10.1002/dta.317
- Aspinal, F., Hughes, R., Dunckley, M., & Addington-Hall, J. (2006). What is important to measure in the last months and weeks of life?: A modified nominal group study. *Int J Nurs Stud*, 43(4), 393-403.
- Assi, S., Gulyamova, N., Ibrahim, K., Kneller, P., & Osselton, D. (2017). Profile, effects, and toxicity of novel psychoactive substances: A systematic review of quantitative studies. *Hum Psychopharmacol*, 32(3).
- Ball, S. (2015). *New Psychoactive Substance Use in Children and Young People: A Rapid Review of the Current Situation in Camden and Islington*. Retrieved from
- Banbury, Lusher, & Guedelha. (2018). Portugal's 2001 Drugs Liberalisation Policy: A UK Service Provider's Perspective on the Psychoactive Substances Act (2016). *Journal of Alcohol & Drug Education*, 62(1), 27-45.
- Barnard, M., Russell, C., McKeganey, N., & Hamilton-Barclay, T. (2017). The highs and lows of NPS/"Legal High" use: Qualitative views from a UK online survey. *Drugs: Education, Prevention & Policy*, 24(1), 96-102.
- Barnett, R. E. (2009). The harmful side effects of drug prohibition. *Utah L. Rev.*, 11.
- Barratt, M. J. (2016). Safer scoring? Cryptomarkets, social supply and drug market violence. *International Journal of Drug Policy*, 35.
- Barratt, M. J., Seear, K., & Lancaster, K. (2017). A critical examination of the definition of 'psychoactive effect' in Australian drug legislation. *Int J Drug Policy*, 40, 16-25. doi:10.1016/j.drugpo.2016.10.002
- Baumann, M. H., Partilla, J. S., Lehner, K. R., Thorndike, E. B., Hoffman, A. F., Holy, M., . . . Schindler, C. W. (2013). Powerful cocaine-like actions of 3,4-methylenedioxypropylvalerone (MDPV), a principal constituent of psychoactive 'bath salts' products. *Neuropsychopharmacology*, 38(4), 552-562.
- Baumeister, D., Tojo, L. M., & Tracy, D. K. (2015). Legal highs: staying on top of the flood of novel psychoactive substances. *Ther Adv Psychopharmacol*, 5(2), 97-132.

- Beardsley, P. M., & Zhang, Y. (2018). Synthetic Opioids. In S. D. B. e. H. H. Maurer (Ed.), *New Psychoactive Substances, Handbook of Experimental Pharmacology 252* (pp. 353-381). Switzerland: Springer International Publishing AG, part of Springer Nature 2018.
- Beharry, S., & Gibbons, S. (2016). An overview of emerging and new psychoactive substances in the United Kingdom. *Forensic Sci Int*, *267*, 25-34.
- Belackova, V., Pazitny, M., Drapalova, E., Martinez, M., van der Gouwe, D., Begley, E., . . . Kmetonynova, D. (2017). Assessing the impact of laws controlling the online availability of 25I-NBOMe, AH-7921, MDPV and MXE – outcomes of a semi-automated e-shop monitoring. *Drugs: Education, Prevention and Policy*, *25*(2), 109-117.
- BELSPO-DR/02/79. (2016). Understanding New Psychoactive Substance (NPS) use in Belgium from a health perspective. In.
- Beltgens, M. T. (2017). Legislative Measures' Impact on the New Psychoactive Substances Market. In O. a. R.-U. Corazza, A. (eds.) (Ed.), *Novel Psychoactive Substances; Policy, Economics and Drug Regulation* (pp. 171-180). Cham, Switzerland: Springer International Publishing AG.
- Benschop, A., Bujalski, M., Dabrowska, K., Demetrovics, Z., Egger, D., Felinczi, K., . . . Korf, D. (2017). New Psychoactive Substances: transnational project on different user groups, user characteristics, extent and patterns of use, market dynamics, and best practices in prevention (NPS-transnational Project; HOME/2014/JDRU/AG/DRUG/7077). *Final Report. Amsterdam: Bofinger Institute of Criminology, University of Amsterdam*.
- Benschop, A., Rabes, M., & Korf, D. J. (2002). Pill testing, ecstasy & prevention.
- Benschop, A. e. a. (2017). *New Psychoactive Substances: transnational project on different user groups, user characteristics, extent and patterns of use, market dynamics, and best practices in prevention*. Retrieved from HOME/2014/JDRU/AG/DRUG/7077
- Bergeron, H., Milhet, M., & Hunt, G. (2011). *Drugs and Culture : Knowledge, Consumption and Policy*. Burlington, Vt: Routledge %@ 978-1-4094-0543-6 978-1-138-27442-6 978-1-317-14772-5 978-1-317-14773-2.
- Bewley-Taylor, D., & Jelsma, M. (2012). *The UN Drug Control Conventions; The Limits of Latitude*. Retrieved from
- Biernacki, P., & Waldorf, D. (1981). Snowball Sampling: Problems and Techniques of Chain Referral Sampling. *Sociological Methods & Research*, *10*(2), 141-163.
- Bijlsma, L., Celma, A., López, F. J., & Hernández, F. (2019). Monitoring new psychoactive substances use through wastewater analysis: current situation, challenges and limitations. *Current Opinion in Environmental Science & Health*, *9*, 1-12.
- Blackman, S., Bradley, R., Fagg, M., & Hickmott, N. (2017). Towards 'Sensible' drug information: critically exploring drug intersectionalities, 'Just Say No,' normalisation and harm reduction. *Drugs: Education, Prevention and Policy*, *25*(4), 320-328.
- Blanckaert, P. (2017). *NPS in Belgium, current status*. Paper presented at the NPS-care Seminar 'Old Wine in New Bottles?', Brussels.
- Bowden-Jones, O. (2013). 'Legal highs' and other 'club drugs': why the song and dance? *The Psychiatrist*, *37*(6), 185-187.

- Bowden-Jones, O., Fitch, C., Hilton, C., Lewis, J., & Ofori-Attah, G. (2014). One new drug a week: Why novel psychoactive substances and club drugs need a different response from UK treatment providers. *London: Faculty of Addictions Psychiatry, Royal College of Psychiatrists.*
- Boys, A., Marsden, J., & Strang, J. (2001). Understanding reasons for drug use amongst young people: a functional perspective. *Health Educ Res, 16*(4), 457-469.
- Bradley, E. H., Curry, L. A., & Devers, K. J. (2007). Qualitative data analysis for health services research: developing taxonomy, themes, and theory. *Health services research, 42*(4), 1758-1772.
- Brandt, S. D., King, L. A., & Evans-Brown, M. (2014). The new drug phenomenon. *Drug Test Anal, 6*(7-8), 587-597.
- Brunt. (2017). Drug checking as a harm reduction tool for recreational drug users: opportunities and challenges. *Lisbon: European Monitoring Centre for Drugs and Drug Addiction.*
- Buchanan, J. (2015). Ending Drug Prohibition with a Hangover? *British Journal of Community Justice, 13*(1), 55-74.
- Campbell, A., O'Neill, N., & Higgins, K. (2017). Health and Social Care workers' perceptions of NPS use in Northern Ireland. *Int J Drug Policy, 40*, 93-101.
- Campbell, A., & O'Neill, N. (2017). *Service providers' perceptions of new psychoactive substance use in Northern Ireland*. Retrieved from Belfast:
- Cantrill, Sibbald, & Buetow. (1996). The Delphi and nominal group techniques in health services research. *International Journal of Pharmacy Practice, 4*(2), 67-74. doi:10.1111/j.2042-7174.1996.tb00844.x
- Chatwin. (2017). Assessing the 'added value' of European policy on new psychoactive substances. *Int J Drug Policy, 40*, 111-116.
- Chatwin, Blackman, S., & O'Brien, K. L. (2018). Intersections in (New) drug research. *Drugs: Education, Prevention and Policy, 25*(4), 297-300. doi:10.1080/09687637.2018.1466867
- Chatwin, Measham, O'Brien, & Sumnall. (2017). New drugs, new directions? Research priorities for new psychoactive substances and human enhancement drugs. *Int J Drug Policy, 40*, 1-5. doi:10.1016/j.drugpo.2017.01.016
- Collins, J. (2017). Regulation as global drug governance: how new is the NPS phenomenon? In *Novel Psychoactive Substances* (pp. 23-41): Springer.
- Colson, R. N. (2017). Harmonizing NPS Legislation Across the European Union: An Utopia. In O. a. R.-U. Corazza, A. (eds.) (Ed.), *Novel Psychoactive Substances; Policy, Economics and Drug Regulation* (pp. 143-153). Cham, Switzerland: Springer International Publishing AG.
- Comiskey, C. (2020). Reducing Harm, Supporting Recovery: a partnership and evidence-informed approach to developing the new Irish health led, National Drug Strategy. *Harm Reduct J, 17*(1), 3.
- Coopman, V., Cordonnier, J., De Leeuw, M., & Cirimele, V. (2016). Ocfentanil overdose fatality in the recreational drug scene. *Forensic Science International, 266*, 469-473.
- Cope, I. (2014). Legal highs: a problem of definitions? – Authors' reply. *The Lancet, 383*(9930), 1715-1716.

- Corazza, O. (2017). The Proliferation of NPS as a 'Game Changer' for Public Health Policy. In O. Corazza & A. Roman-Urrestarazu (Eds.), *Novel Psychoactive Substances; Policy, Economics and Drug Regulation* (pp. xiii-xviii). Cham, Switzerland: Springer.
- Corazza, O., Demetrovics, Z., van den Brink, W., & Schifano, F. (2013). 'Legal highs' an inappropriate term for 'Novel Psychoactive Drugs' in drug prevention and scientific debate. *Int J Drug Policy, 24*(1), 82-83.
- Corazza, O., Simonato, P., Corkery, J., Trincas, G., & Schifano, F. (2014). "Legal highs": safe and legal "heavens"? A study on the diffusion, knowledge and risk awareness of novel psychoactive drugs among students in the UK. *Rivista di Psichiatria, 49*(2).
- Corkery, Orsolini, Papanti, & Schifano. (2017). From concept(ion) to life after death/the grave: The 'natural' history and life cycle(s) of novel psychoactive substances (NPS). *Hum Psychopharmacol, 32*(3). doi:10.1002/hup.2566
- Corkery, Orsolini, L., Papanti, D., & Schifano, F. (2018). Novel psychoactive substances (NPS) and recent scenarios: Epidemiological, anthropological and clinical pharmacological issues. In.
- Coulson, C., & Caulkins, J. P. (2012). Scheduling of newly emerging drugs: a critical review of decisions over 40 years. *Addiction, 107*(4), 766-773.
- Council of the European Union. (2005). *Council Decision 2005/387/JHA of 10 May 2005 on the information exchange, risk-assessment and control of new psychoactive substances.* (32005D0387). Luxembourg: Official Journal of the European Union Retrieved from <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32005D0387>.
- d'Angelo, L., Camilla, S., Savulich, G., & Sahakian, B. J. (2017). Lifestyle use of drugs by healthy people for enhancing cognition, creativity, motivation and pleasure. *British Journal of Pharmacology, 174*(19), 3257-3267.
- Das, P., & Horton, R. (2019). The global drug problem: change but not progression. *The Lancet, 394*(10208), 1488-1490.
- Decorte, T., Mortelmans, D., Tieberghien, J., & De Moor, S. (2009). *Drug use: overview of general population surveys in Europe: EMCDDA %@ 92-9168-375-2.*
- Decorte, T., & Zaitch, D. (2016). *Kwalitatieve methoden en technieken in de criminologie* (Derde, grondig herwerkte editie ed.). Leuven / Den Haag: Acco.
- Degenhardt, L., Wolfe, D., Hall, W., Hickman, M., Chang, J., Bruneau, J., . . . Griffiths, P. (2019). Strategies to reduce drug-related harm: responding to the evidence base. *The Lancet, 394*(10208), 1490-1493.
- Degreef, M., Blanckaert, P., Berry, E. M., van Nuijs, A. L. N., & Maudens, K. E. (2019). Determination of ocfentanil and W-18 in a suspicious heroin-like powder in Belgium. *Forensic Toxicology*.
- Deligianni, E., Corkery, J. M., Schifano, F., & Lione, L. A. (2017). An international survey on the awareness, use, preference, and health perception of novel psychoactive substances (NPS). *Hum Psychopharmacol, 32*(3).
- Deluca, P., Davey, Z., Corazza, O., Di Furia, L., Farre, M., Flesland, L. H., . . . Schifano, F. (2012). Identifying emerging trends in recreational drug use; outcomes from the Psychonaut Web Mapping Project.

Progress in Neuro-Psychopharmacology and Biological Psychiatry, 39(2), 221-226 %U
<https://linkinghub.elsevier.com/retrieve/pii/S0278584612001844>.

- Dening, K. H., Jones, L., & Sampson, E. L. (2013). Preferences for end-of-life care: A nominal group study of people with dementia and their family carers. *Palliative Medicine*, 27(5), 409-417.
doi:10.1177/0269216312464094
- Desai, M., Bourne, A., Hope, V., & Halkitis, P. N. (2018). Sexualised drug use: LGBT communities and beyond. *International Journal of Drug Policy*, 55, 128-130.
- Dines, A. M., Wood, D. M., Yates, C., Heyerdahl, F., Hovda, K. E., Giraudon, I., . . . Group, E.-D. R. (2015). Acute recreational drug and new psychoactive substance toxicity in Europe: 12 months data collection from the European Drug Emergencies Network (Euro-DEN). *Clinical toxicology*, 53(9), 893-900.
- Doessel, D. P., & Williams, R. F. G. (2008). The Simple Analytics of Illicit Drug Policy. *Australian Economic Review*, 41(3), 239-249.
- Drummer, O. H. (2018). Fatalities caused by novel opioids: a review. *Forensic Sciences Research*, 1-16.
- Duke, K. (2019). Producing the 'problem' of new psychoactive substances (NPS) in English prisons. *International Journal of Drug Policy*.
- Dunham, R. B. (1998). Nominal group technique: a users' guide. *Madison: Wisconsin School of Business*, 2.
- EMCDDA. (2006). Monitoring new drugs [Press release]
- EMCDDA. (2015). *New psychoactive substances in Europe; An update from the EU Early Warning System*. Retrieved from Luxembourg: www.emcdda.europa.eu/publications/2015/new-psychoactive-substances
- EMCDDA. (2016a). *EMCDDA–Europol 2016 Annual Report on the implementation of Council Decision 2005/387/JHA* (ISSN 1977-7841). Retrieved from
- EMCDDA. (2016b). *Health Responses to New Psychoactive Substances*. Retrieved from Luxembourg:
- EMCDDA. (2016c). *Legal approaches to controlling new psychoactive substances*. Retrieved from
- Emcdda. (2016d). *New psychoactive substances in Europe - Legislation and prosecution — current challenges and solutions*.
- EMCDDA. (2016e). *Preventing opioid overdose deaths with take-home naloxone*: Publications Office of the European Union.
- EMCDDA. (2017a). *Health and social responses to drug problems: A European guide*. Retrieved from Luxembourg:
- EMCDDA. (2017b). *High-risk drug use and new psychoactive substances; Results from an EMCDDA trendspotter study*. Retrieved from Luxembourg:
- EMCDDA. (2017c) *Synthetic cannabinoids in Europe*. In, *Perspectives on Drugs* (Update 6. 6 2017 ed.): EMCDDA.

- EMCDDA. (2018a). *Fentanils and synthetic cannabinoids: driving greater complexity into the drug situation; An update from the EU Early Warning System*. Retrieved from Luxembourg:
- EMCDDA. (2018b). *New psychoactive substances in prison; Results from an EMCDDA trendspotter study*. Retrieved from Luxembourg: <http://www.emcdda.europa.eu/system/files/publications/8869/nps-in-prison.pdf>
- EMCDDA. (2019a). *Drugs in syringes from six European countries_ results from the ESCAPE project 2017*. Retrieved from
- EMCDDA. (2019b). *European Drug Report 2019; Trends and Developments*. Retrieved from Luxembourg: http://www.emcdda.europa.eu/system/files/publications/11364/20191724_TDAT19001ENN_PDF.pdf
- EMCDDA, & Europol. (2010). *EMCDDA–Europol 2010 Annual Report on the implementation of Council Decision 2005/387/JHA*
- Emerson, B., & Haden, M. (2018). Public Health and the Harm Reduction Approach to Illegal Psychoactive Substances☆. In *Reference Module in Biomedical Sciences*: Elsevier %@ 978-0-12-801238-3.
- ESPAD. (2015). *The 2015 ESPAD Report: Results from the European School Survey Project on Alcohol and Other Drugs*. Retrieved from Luxembourg::
- European Council. (1997). *97/396/JHA: Joint Action of 16 June 1997 adopted by the Council on the basis of Article K.3 of the Treaty on European Union, concerning the information exchange, risk assessment and the control of new synthetic drugs*. (31997F0396). Luxembourg: Official Journal of the European Communities Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997F0396&from=EN>.
- Evans-Brown, M., & Sedefov, R. (2018). Responding to New Psychoactive Substances in the European Union: Early Warning, Risk Assessment, and Control Measures. In H. H. Maurer & Brandt (Eds.), *New Psychoactive Substances, Handbook of Experimental Pharmacology* (Vol. 252, pp. 3-49 %@ 0171-2004 (Print) 0171-2004 (Linking)). Switzerland: Springer International Publishing AG, part of Springer Nature.
- Farré, M., Galindo, L., & Torrens, M. (2015). Addiction to Hallucinogens, Dissociatives, Designer Drugs and “Legal Highs”. In N. e.-G. e. a. (eds.) (Ed.), *Textbook of addiction treatment: International perspectives* (pp. 567-596). Italy: Springer-Verlag Italia.
- Feng, L.-Y., Battulga, A., Han, E., Chung, H., & Li, J.-H. (2017). New psychoactive substances of natural origin: A brief review. *Journal of Food and Drug Analysis*, 25, 461-471. doi:10.1016/j.jfda.2017.04.001
- Fletcher, E., Tasker, S., Easton, P., & Denvir, L. (2015). Improving the help and support provided to people who take new psychoactive substances (‘legal highs’). *Journal of public health*, 38(4), e489-e495.
- Freitas, H., Oliveira, M., Jenkins, M., Popjoy, O. . (1998). The Focus Group, a Qualitative Research Method; Reviewing The theory, and Providing Guidelines to Its Planning. *ISRC, Merrick School of Business, University of Baltimore (MD, EUA)*, 22.

- Friedman, S. R., de Jong, W., Rossi, D., Touzé, G., Rockwell, R., Des Jarlais, D. C., & Elovich, R. (2007). Harm reduction theory: Users' culture, micro-social indigenous harm reduction, and the self-organization and outside-organizing of users' groups. *International Journal of Drug Policy*, 18(2), 107-117.
- GDS, & Van Havere, T. (2017). *Global Drug Survey; country report for Belgium*. Retrieved from
- Giraudon, I., Schmidt, A. J., & Mohammed, H. (2018). Surveillance of sexualised drug use – the challenges and the opportunities. *International Journal of Drug Policy*, 55, 149-154.
- Green, A. R., & Nutt, D. J. (2014). Pharmacology should be at the centre of all preclinical and clinical studies on new psychoactive substances (recreational drugs). *Journal of Psychopharmacology*, 28(8), 711-718.
- Greer, A. M., & Ritter, A. (2019). "It's about bloody time": Perceptions of people who use drugs regarding drug law reform. *Int J Drug Policy*, 64, 40-46.
- Griffiths, P., Evans-Brown, M., & Sedefov, R. (2013). Getting up to speed with the public health and regulatory challenges posed by new psychoactive substances in the information age. *Addiction*, 108(10), 1700-1703.
- Griffiths, P., & Götz, W. (2013). Forewords. In P. L. a. W. Dargan, D.M. (eds.) (Ed.), *Novel Psychoactive Substances: Classification, Pharmacology and Toxicology* (Vol. 252): Academic Press, Elsevier.
- Griffiths, P., Sedefov, R., Gallegos, A., & Lopez, D. (2010). How globalization and market innovation challenge how we think about and respond to drug use: 'Spice' a case study. *Addiction*, 105(6), 951-953.
- Groves, A. (2018). 'Worth the test?' Pragmatism, pill testing and drug policy in Australia. *Harm Reduct J*, 15(1), 12.
- Grund, J.-P. C., Vavrincikova, L., Fidesova, H., & Janikova, B. (2016). *New Psychoactive Substances among People Who Use Drugs Heavily. Towards Effective and Comprehensive Health Responses in Europe*. (JUST/2013/DPIP 4000004774). Retrieved from www.npsineurope.eu
- Guirguis, A. (2017). New psychoactive substances: a public health issue. *Int J Pharm Pract*, 25(5), 323-325.
- Head, B. W. (2016). Toward More "Evidence-Informed" Policy Making? *Public Administration Review*, 76(3), 472-484.
- Helander, A., & Bäckberg, M. (2017). New Psychoactive Substances (NPS) - the Hydra monster of recreational drugs. *Clin Toxicol (Phila)*, 55(1), 1-3.
- Hill, S. L., & Dargan, P. I. (2018). Patterns of Acute Toxicity Associated with New Psychoactive Substances. In H. H. Maurer & S. D. e. Brandt (Eds.), *New Psychoactive Substances, Handbook of Experimental Pharmacology* (2018/06/14 ed., Vol. 252, pp. 475-494). Switzerland: Springer.
- Home Office. (2016). New Psychoactive Substances (NPS); Resource pack for informal educators and practitioners. In (Resource pack ed., pp. 19). United Kingdom: Public Health England (PHE).
- Horton, J. (1980). Nominal group technique: A method of decision-making by committee. *Anaesthesia*, 35(8), 811-814.
- Hughes, B., Evans-Brown, M., & Sedefov, R. (2016). Legal Controls of Psychoactive Substances in Europe. *Handbuch Psychoaktive Substanzen*, 1-15.

- Hunt, N., Albert, E., & Sánchez, V. M. (2010). User involvement and user organising in harm reduction. In T. Rhodes & D. Hedrich (Eds.), *EMCDDA Monographs; Harm reduction: evidence, impacts and challenges Monographs* (Vol. 10, pp. 333-354). Luxembourg: Publications Office of the European Union. doi:10.2810/29497
- Jansen, H. (2010). *The logic of qualitative survey research and its position in the field of social research methods*. Paper presented at the Forum Qualitative Sozialforschung/Forum: Qualitative Social Research.
- Joyce, N., MacNeela, P., Sarma, K., Ryall, G., & Keenan, E. (2018). The Experience and Meaning of Problematic 'G' (GHB/GBL) Use in an Irish Context: an Interpretative Phenomenological Analysis. *International Journal of Mental Health and Addiction*, 16(4), 1033-1054.
- Kalant, H. (2010). Drug classification: science, politics, both or neither? *Addiction*, 105(7), 1146-1149.
- Karila, Marillier, M., Chaumette, B., Billieux, J., Franchitto, N., & Benyamina, A. (2018). New synthetic opioids: Part of a new addiction landscape. *Neurosci Biobehav Rev*. doi:10.1016/j.neubiorev.2018.06.010
- Kavanagh, P. V., & Power, J. D. (2014). New psychoactive substances legislation in Ireland - Perspectives from academia. *Drug Test Anal*, 6(7-8), 884-891.
- Kettner, H., Mason, N. L., & Kuypers, K. P. (2019). Motives for Classical and Novel Psychoactive Substances Use in Psychedelic Polydrug Users. *Contemporary Drug Problems*, 46(3), 304-320.
- Khaled, S. M., Hughes, E., Bressington, D., Zolezzi, M., Radwan, A., Badnapurkar, A., & Gray, R. (2016). The prevalence of novel psychoactive substances (NPS) use in non-clinical populations: a systematic review protocol. *Syst Rev*, 5(1), 195.
- King, & Nutt. (2014). *Deaths from "legal highs": a problem of definitions* (01406736). Retrieved from www.thelancet.com
- King, L. A., & Kicman, A. T. (2011). A brief history of 'new psychoactive substances'. *Drug Testing and Analysis*, 3, 401-403. doi:10.1002/dta.319
- King, L. A., & Nutt, D. J. (2014). Legal highs: a problem of definitions? – Authors' reply. *The Lancet*, 383(9930), 1715-1716.
- Kjellgren, A., Jacobsson, K., & Soussan, C. (2016). The quest for well-being and pleasure: experiences of the novel synthetic opioids AH-7921 and MT-45, as reported by anonymous users online. *Journal of Addiction Research & Therapy*, 7(4).
- Koning, R., & Niesink, R. (2013). Nieuwe Psychoactieve Stoffen (NPS): niets nieuws onder de zon. *Verslaving*, 9(1), 47-59.
- Korf, D., Benschop, A., Werse, B., Kamphausen, G., Felvinczi, K., Dabrowska, K., . . . Bujalski, M. (2019). How and Where to Find NPS Users: a Comparison of Methods in a Cross-National Survey Among Three Groups of Current Users of New Psychoactive Substances in Europe. *International Journal of Mental Health and Addiction*, 1-18.
- Kraemer, M., Boehmer, A., Madea, B., & Maas, A. (2019, Feb 25). *Death cases involving certain new psychoactive substances: A review of the literature*. Literature review. [2019/03/30]. *Forensic Sci Int*, (298).

- Krajewski, K. (1999). How flexible are the United Nations drug conventions? *International Journal of Drug Policy*, 10(4), 329-338.
- Lamy, F. R., Daniulaityte, R., Nahhas, R. W., Barratt, M. J., Smith, A. G., Sheth, A., . . . Carlson, R. G. (2017). Increases in synthetic cannabinoids-related harms: Results from a longitudinal web-based content analysis. *International Journal of Drug Policy*, 44, 121-129.
- Leppo, A., & Perala, R. (2009). User involvement in Finland: the hybrid of control and emancipation. *J Health Organ Manag*, 23(3), 359-371.
- Li, L., & Vlisides, P. E. (2016). Ketamine: 50 Years of Modulating the Mind. *Frontiers in Human Neuroscience*, 10, 15. doi:10.3389/fnhum.2016.00612
- Lievens, D., Vander Laenen, F., Verhaeghe, N., Putman, K., Pauwels, L., Hardyns, W., & Annemans, L. (2017). Economic consequences of legal and illegal drugs: The case of social costs in Belgium. *International Journal of Drug Policy*, 44, 50-57.
- Logan, B. K., Mohr, A. L. A., Friscia, M., Krotulski, A. J., Papsun, D. M., Kacinko, S. L., . . . Huestis, M. A. (2017). Reports of Adverse Events Associated with Use of Novel Psychoactive Substances, 2013–2016: A Review. *Journal of analytical toxicology*, 41(7), 573-610. doi:10.1093/jat/bkx031
- MacCoun, R. J. (1993). Drugs and the Law: A Psychological Analysis of Drug Prohibition. *Psychological Bulletin (American Psychological Association-APA)*, 113(3), 497-512.
- MacCoun, R. J., & Reuter, P. (2001). *Drug War Heresies: Learning from Other Vices, Times, & Places*. USA: Cambridge University Press.
- Macfarlane, A. (2016). Sex, drugs and self-control: why chemsex is fast becoming a public health concern. *Journal of Family Planning and Reproductive Health Care*, 42(4), 291-294.
- MacPhail, A. (2001). Nominal group technique: a useful method for working with young people. *British Educational Research Journal*, 27(2), 161-170.
- Madras, B. K. (2017). The Growing Problem of New Psychoactive Substances (NPS). *Curr Top Behav Neurosci*, 32, 1-18.
- Martins, D., Barratt, M. J., Pires, C. V., Carvalho, H., Vilamala, M. V., Espinosa, I. F., & Valente, H. (2017). The detection and prevention of unintentional consumption of DOx and 25x-NBOMe at Portugal's Boom Festival. *Hum Psychopharmacol*, 32(3).
- McAuley, A., Aucott, L., & Matheson, C. (2015). Exploring the life-saving potential of naloxone: A systematic review and descriptive meta-analysis of take home naloxone (THN) programmes for opioid users. *International Journal of Drug Policy*, 26(12), 1183-1188.
- McLeod, K., Pickering, L., Gannon, M., Greenwood, S., Liddell, D., Smith, A., . . . Burton, G. (2016). Understanding the patterns of use, motives, and harms of New Psychoactive Substances in Scotland.
- McMillan, Kelly, F., Sav, A., Kendall, E., King, M. A., Whitty, J. A., & Wheeler, A. J. (2014). Using the Nominal Group Technique: how to analyse across multiple groups. *Health Services and Outcomes Research Methodology*, 14(3), 92-108.

- McMillan, King, M., & Tully, M. P. (2016). How to use the nominal group and Delphi techniques. *International journal of clinical pharmacy*, 38(3), 655-662.
- Meader, N., Mdege, N., & McCambridge, J. (2018). The public health evidence-base on novel psychoactive substance use: scoping review with narrative synthesis of selected bodies of evidence. *Journal of Public Health*, 40(3), e303-e319.
- Measham, F. (2013). Social issues in the use of novel psychoactive substances: Differentiated demand and ideological supply. In *Novel Psychoactive Substances* (pp. 105-127): Elsevier.
- Measham, F., & Newcombe, R. (2016). What's So 'New' About New Psychoactive Substances? Definitions, Prevalence, Motivations, User Groups and A Proposed New Taxonomy. In *The SAGE Handbook of Drug and Alcohol Studies* (pp. 576-596 % @ 978-571-4462-9866-4464 4978-4461-4739-2198-4466).
- Monaghan, M., Wincup, E., & Wicker, K. (2018). Experts, expertise and drug policymaking. *The Howard Journal of Crime and Justice*, 57(3), 422-441.
- Moosmann, B., & Auwärter, V. (2018). Designer Benzodiazepines: Another Class of New Psychoactive Substances. In S. D. B. H. H. Maurer (Ed.), *New Psychoactive Substances, Handbook of Experimental Pharmacology 252* (pp. 383-410). Cham, Switzerland: Springer International Publishing AG, part of Springer Nature 2018.
- Morgan, & Spanish. (1984). Focus groups: A new tool for qualitative research. *Qualitative Sociology*, 7(3), 253-270.
- Móro, L., & Rácz, J. (2013). Online drug user-led harm reduction in Hungary: a review of "Daath". *Harm Reduct J*, 10(18), 11.
- Mouteney, J. (2017). *Monitoring new substances at European level*. Paper presented at the NPS Seminar 'Old wine in new bottles', Brussel.
- Moyes, H. (2018). How Do New Psychoactive Substances Affect the Mental Health of Prisoners? In A. Mills & Kendall (Eds.), *Mental Health in Prisons* (pp. 131-157 % @ 978-133-319-94089-94082 94978-94083-94319-94090-94088): The Author(s).
- Musto, D. F. (1999). *The American Disease; Origins of Narcotic Control* (Third edition ed.). New York: Oxford University Press.
- Naumann, R. B., Durrance, C. P., Ranapurwala, S. I., Austin, A. E., Proescholdbell, S., Childs, R., . . . Shanahan, M. E. (2019). Impact of a community-based naloxone distribution program on opioid overdose death rates. *Drug Alcohol Depend*, 204, 107536.
- Negrei, C., Galateanu, B., Stan, M., Balalau, C., Dumitru, M. L. B., Ozcagli, E., . . . Tsatsakis, A. (2017). Worldwide legislative challenges related to psychoactive drugs. *Daru*, 25(1), 14.
- Neicun, J., Steenhuizen, M., van Kessel, R., Yang, J. C., Negri, A., Czabanowska, K., . . . Roman-Urrestarazu, A. (2019). Mapping novel psychoactive substances policy in the EU: The case of Portugal, the Netherlands, Czech Republic, Poland, the United Kingdom and Sweden. *Plos One*, 14(6), e0218011.
- Neptune. (2015). *Guidance on the Clinical Management of Acute and Chronic Harms of Club Drugs and Novel Psychoactive Substances*. Retrieved from <https://www.drugsandalcohol.ie/24292/>

- Norton, A. (2015). *'Spicing up the subject' The recorded experiences of prisoners and prison staff on the subject: New psychoactive substance use in a North West Prison.* (John Sunley Prize winning masters dissertation), Manchester Metropolitan University, Manchester UK.
- Nutt, D. (2011). Perverse effects of the precautionary principle: how banning mephedrone has unexpected implications for pharmaceutical discovery. *Therapeutic advances in psychopharmacology*, 1(2), 35-36. doi:10.1177/2045125311406958
- O'Brien, K., Chatwin, C., Jenkins, C., & Measham, F. (2014). New psychoactive substances and British drug policy: A view from the cyber-psychonauts. *Drugs: Education, Prevention and Policy*, 22(3), 217-223.
- O'Hagan, & Smith, C. (2017). A New Beginning: An Overview of New Psychoactive Substances. *Forensic Research & Criminology International Journal*, 5(3), 13.
- O'Hagan, A. (2019). To what extent has the United Kingdom law on psychoactive substances been successful? *Foresic Research & Criminology International Journal*, 7(4). doi:10.15406/frcij.2019.07.00284
- Orsolini, L., Papanti, D., Corkery, J., & Schifano, F. (2017). An insight into the deep web; why it matters for addiction psychiatry? *Human Psychopharmacology*, 32(3). doi:10.1002/hup.2573
- Orsolini, L., St John-Smith, P., McQueen, D., Papanti, D., Corkery, J., & Schifano, F. (2017). Evolutionary Considerations on the Emerging Subculture of the E-psychonauts and the Novel Psychoactive Substances: A Comeback to the Shamanism? *Curr Neuropharmacol*, 15(5), 731-737.
- Owie, R. E., Gosney, P., Roney, A., & O'Brien, A. (2017). Psychiatrists' knowledge of novel psychoactive substances. *Drugs and Alcohol Today*, 17(3), 178-185.
- Papaseit, Molto, J., Muga, R., Torrens, M., de la Torre, R., & Farre, M. (2017). Clinical Pharmacology of the Synthetic Cathinone Mephedrone. *Curr Topics Behav Neurosci*, 32, 313-332. doi:10.1007/7854_2016_61
- Patel, N. B. (2019). Khat (*Catha edulis* Forsk) - And now there are three. *Brain Res Bull*, 145, 92-96.
- Peacock, A., Bruno, R., Gisev, N., Degenhardt, L., Hall, W., Sedefov, R., . . . Griffiths, P. (2019). New psychoactive substances: challenges for drug surveillance, control, and public health responses. *The Lancet*, 394(10209), 1668-1684.
- Peacock, A., Leung, J., Larney, S., Colledge, S., Hickman, M., Rehm, J., . . . Griffiths, P. (2018). Global statistics on alcohol, tobacco and illicit drug use: 2017 status report. *Addiction*, 113(10), 1905-1926.
- Peprah, K., & Frey, N. (2017). Intranasal and Intramuscular Naloxone for Opioid Overdose in the Pre-Hospital Setting: A Review of Comparative Clinical and Cost-Effectiveness, and Guidelines. In: Canadian Agency for Drugs and Technologies in Health, Ottawa (ON).
- PHE. (2017). *Thematic analysis of training for prison staff on new psychoactive substances; November 2015 to May 2016.* (2016597). Katie Smith Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/669546/Analysis_of_training_programme_for_prison_staff_on_NPS_2015_to_2016.pdf.
- Pirona, A. (2017). *NPS in Europe-current practices & challenges for health professionals.* Paper presented at the NPS-care Seminar 'Old Wine in New Bottles?', Brussels.

- Pirona, A., Bo, A., Hedrich, D., Ferri, M., van Gelder, N., Giraudon, I., . . . Mounteney, J. (2017). New psychoactive substances: Current health-related practices and challenges in responding to use and harms in Europe. *Int J Drug Policy*, *40*, 84-92.
- Potter, G. R., & Chatwin, C. (2017). Not particularly special: critiquing 'NPS' as a category of drugs. *Drugs: Education, Prevention and Policy*, *25*(4), 329-336. doi:10.1080/09687637.2017.1411885
- Potter, W. L.-D., D. (1999). Rethinking validity and reliability in content analysis. *27*, 258-284. doi:10.1080/00909889909365539
- Public Health England. (2016). *New psychoactive substances or 'legal highs': toolkit for prison staff*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/669541/9011-phe-nps-toolkit-update-final.pdf.
- Racz, J., Csak, R., Toth, K. T., Toth, E., Rozman, K., & Gyarmathy, V. A. (2016). Veni, vidi, vici: The appearance and dominance of new psychoactive substances among new participants at the largest needle exchange program in Hungary between 2006 and 2014. *Drug Alcohol Depend*, *158*, 154-158.
- Ralphs, & Gray, P. (2018). New Psychoactive Substances: New service provider challenges. *Drugs: Education, Prevention and Policy*, *25*(4), 301-312.
- Reuter. (2011). *Options for regulating new psychoactive drugs: a review of recent experiences*. Retrieved from United Kingdom: www.ukdpc.org.uk/publications.shtml
- Reuter, & Pardo. (2017). New Psychoactive Substances: The Regulatory Experience and Assessment of Options. In O. a. R.-U. Corazza, A. (eds.) (Ed.), *Novel Psychoactive Substances: Policy, Economics and Drug Regulation* (pp. 155-177). Cham, Switzerland: Springer International Publishing AG 2017.
- Rhodes, T., & Hedrich, D. (2010). EMCDDA monographs. Harm reduction: Evidence, impacts and challenges. In.
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers*: sage %@ 1-4462-9620-2.
- Rolles, S., & Kushlik, D. (2014). Prohibition is a key driver of the new psychoactive substances (NPS) phenomenon. In U. Transform Drug Policy Foundation (Ed.), *Addiction* (Vol. 109, pp. 1587-1594): © 2014 Society for the Study of Addiction.
- Rosiers. (2018). *VAD uitgaansonderzoek 2018*. Retrieved from Brussels:
- Rosino, M., & Linders, A. (2015). Howard Becker in Hyperspace: Social Learning in an On-Line Drug Community. *Deviant Behavior*, *36*(9), 725-739. doi:10.1080/01639625.2014.977114
- Rychert, M., & Wilkins, C. (2016). What products are considered psychoactive under New Zealand's legal market for new psychoactive substances (NPS, 'legal highs')? Implications for law enforcement and penalties. *Drug Test Anal*, *8*(8), 768-778.
- Scherbaum, N., Schifano, F., & Bonnet, U. (2017). New Psychoactive Substances (NPS) – a Challenge for the Addiction Treatment Services. *Pharmacopsychiatry*, *50*(03), 116-122.
- Schifano, F. (2018). Recent Changes in Drug Abuse Scenarios: The New/Novel Psychoactive Substances (NPS) Phenomenon. *Brain Sciences*, *8*(12), 221.

- Seddon. (2014). Drug policy and global regulatory capitalism: The case of new psychoactive substances (NPS). *International Journal of Drug Policy*, 25, 1019-1024.
- Seddon. (2016). Inventing drugs: A genealogy of a regulatory concept. *Journal of Law and Society*, 43(3), 393-415.
- Sedefov, R., Gallegos, A., Mounteney, J., & Kenny, P. (2013). Chapter 2 - Monitoring Novel Psychoactive Substances: A Global Perspective. In P. I. Dargan & D. M. Wood (Eds.), *Novel Psychoactive Substances* (pp. 29-54). Boston: Academic Press.
- Semków, D. (2019). New psychoactive substances. The phenomenon development and the institutional and legal mechanisms for its prevention. *Journal of Modern Science*, 40(1), 45-64.
- Simmler, L. D., & Liechti, M. E. (2018). Pharmacology of MDMA- and Amphetamine-Like New Psychoactive Substances. In S. D. e. Maurer; H.H. and Brandt (Ed.), *New Psychoactive Substances, Handbook of Experimental Pharmacology* (Vol. 252, pp. 143-164). Switzerland: # Springer International Publishing AG, part of Springer Nature.
- Simonato, P. (2015). Evaluating and expanding knowledge and awareness of health professionals on the consumption and adverse consequences of Novel Psychoactive Substances (NPS) through innovative information technologic tools.
- Simonato, P., Corazza, O., Santonastaso, P., Corkery, J., Deluca, P., Davey, Z., . . . Schifano, F. (2013). Novel psychoactive substances as a novel challenge for health professionals: results from an Italian survey. *Hum Psychopharmacol*, 28(4), 324-331.
- Singh, D., Narayanan, S., Vicknasingam, B., Corazza, O., Santacroce, R., & Roman-Urrestarazu, A. (2017). Changing trends in the use of kratom (*Mitragyna speciosa*) in Southeast Asia. *Human Psychopharmacology: Clinical and Experimental*, 32(3), e2582.
- Smith, Z., Moore, K., & Measham, F. (2009). MDMA powder, pills and crystal: the persistence of ecstasy and the poverty of policy. *Drugs and Alcohol Today*, 9(1), 13-19.
- Smithson, J. (2000). Using and analysing focus groups: limitations and possibilities. *International Journal of Social Research Methodology*, 3(2), 103-119.
- Soussan, C., Andersson, M., & Kjellgren, A. (2018). The diverse reasons for using Novel Psychoactive Substances - A qualitative study of the users' own perspectives. *Int J Drug Policy*, 52, 71-78.
- Soussan, C., & Kjellgren, A. (2014). Harm reduction and knowledge exchange—a qualitative analysis of drug-related Internet discussion forums. *Harm Reduction Journal*, 11(25), 9.
- Soussan, C., & Kjellgren, A. (2016). The users of Novel Psychoactive Substances: Online survey about their characteristics, attitudes and motivations. *Int J Drug Policy*, 32, 77-84.
- South, J., Bagnall, A.-M., & Woodall, J. (2017). Developing a typology for peer education and peer support delivered by prisoners. *Journal of Correctional Health Care*, 23(2), 214-229.
- Stephenson, & Richardson, A. (2014). *New Psychoactive Substances in England; A review of the evidence*. United Kingdom: Home Office.

- Stevens, A., Fortson, R., Measham, F., & Sumnall, H. (2015). Legally flawed, scientifically problematic, potentially harmful: The UK Psychoactive Substance Bill. *Int J Drug Policy*, 26(12), 1167-1170.
- Stiegel, U. (2017). Legislating NPS in the European Union. In O. Corazza & A. Roman-Urrestarazu (Eds.), *Novel Psychoactive Substances: Policy, Economics and Drug Regulation* (pp. 13-22 @ 978-973-319-60600-60602). Cham: Springer International Publishing.
- Sumnall, Evans-Brown, M., & McVeigh, J. (2011). Social, policy, and public health perspectives on new psychoactive substances. *Drug Test Anal*, 3(7-8), 515-523.
- Sumnall, Hamilton, & Monaghan. (2017). Novel Psychoactive Substances: important information for health professionals (Blog). Retrieved December 2019, from National Elf Service (<https://www.nationalelfservice.net/>) <https://www.nationalelfservice.net/mental-health/substance-misuse/novel-psychoactive-substances-important-information-for-health-professionals/>
- Sumnall, McVeigh, J., & Evans-Brown, M. J. (2013). Epidemiology of use of novel psychoactive substances. In *Novel psychoactive substances* (pp. 79-103): Elsevier.
- Taylor, J. (2015). The Stimulants of Prohibition: Illegality and New Synthetic Drugs. *Territory, Politics, Governance*, 3(4), 407-427.
- Taylor, S., Buchanan, J., & Ayres, T. (2016). Prohibition, privilege and the drug apartheid: The failure of drug policy reform to address the underlying fallacies of drug prohibition. *Criminology & Criminal Justice*, 16(4), 452-469.
- Tetty, Crean, C., Ifeagwu, S. C., & Raithelhuber, M. (2018). Emergence, Diversity, and Control of New Psychoactive Substances: A Global Perspective. In S. D. B. e. H. H. Maurer (Ed.), *New Psychoactive Substances, Handbook of Experimental Pharmacology 252* (Vol. 252, pp. 51-67): Springer International Publishing AG.
- TNS Political & Social. (2014). *Flash Eurobarometer 401 - Young people and drugs*. Retrieved from
- Totikidis, V. (2010). Applying the nominal group technique (NGT) in community based action research for health promotion and disease prevention. *Aust Community Psychol*, 22(1), 18-29.
- Tracy, D. K., Wood, D. M., & Baumeister, D. (2017). Novel psychoactive substances: identifying and managing acute and chronic harmful use. *BMJ*, 356, i6814.
- Tzanetakis, M. (2018). Comparing cryptomarkets for drugs. A characterisation of sellers and buyers over time. *International Journal of Drug Policy*, 56, 176-186. doi:10.1016/j.drugpo.2018.01.022
- UNODC. (2013). *The challenge of new psychoactive substances*. Retrieved from Vienna, Austria: <http://www.unodc.org/unodc/en/scientists/smart.html>
- UNODC. (2014). *Global Synthetic Drugs Assessment; Amphetamine-type stimulants and new psychoactive substances*. (E.14.XI.6). Vienna Retrieved from https://www.unodc.org/documents/scientific/2014_Global_Synthetic_Drugs_Assessment_web.pdf
- UNODC. (2017). *World Drug Report 2017, Pt. 4; Market Analysis of Synthetic Drugs, Amphetamine-type stimulants, new psychoactive substances*. (. E.17.XI.6). Vienna.

- UNODC. (2018a). *Understanding the synthetic drug market: the NPS factor*. Retrieved from Vienna, Austria: www.unodc.org/documents/scientific/Global_Drugs_Assessment_2017.pdf
- UNODC. (2018b). *World Drug Report 2018; Executive summary: conclusions and policy implications* (ISBN: 978-92-1-148304-8). Retrieved from https://www.unodc.org/wdr2018/prelaunch/WDR18_Booklet_1_EXSUM.pdf
- UNODC. (2019). *UNODC Early Warning Advisory on New Psychoactive Substances*. Retrieved from Vienna, Austria: <https://www.unodc.org/LSS/Page/NPS>
- VAD. (2017). *Factsheet Nieuwe Psychoactieve Stoffen (NPS)*. Retrieved from Brussels: <http://www.vad.be/materialen/detail/factsheet-smartdrugs--nieuwe-psychoactieve-stoffen>
- VAD, & Sciensano. (2016). Het Drugwiel; een nieuw model voor productinformatie - effecten per categorie. In H. Drugwiel (Ed.), www.thedrugswheel.com (Vertaald door VAD (www.vad.be) en WIV ed., pp. Fig.). UK: Designed in collaboration with DrugWatch.
- VAD&Sciensano. (2018). Het Drugwiel: Een nieuw model voor productinformatie. In D. 2018 (Ed.), *The Drugs Wheel by Mark Adley is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 Unported License*. ([BE versie 1.0 • 17/01/2018] ed., pp. Aangepast aan de Belgische context door VAD en WIV op 17/01/2018.): www.thedrugswheel.com.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15(3), 398-405. doi:10.1111/nhs.12048
- van Amsterdam, J., Brunt, T., Pennings, E., & van den Brink, W. (2014). Risk assessment of GBL as a substitute for the illicit drug GHB in the Netherlands. A comparison of the risks of GBL versus GHB. *Regul Toxicol Pharmacol*, 70(2), 507-513. doi:10.1016/j.yrtph.2014.08.014
- van Amsterdam, J., Nutt, D., Phillips, L., & van den Brink, W. (2015). European rating of drug harms. *J Psychopharmacol*, 29(6), 655-660. doi:10.1177/0269881115581980
- van Amsterdam, J., Nutt, D., & van den Brink, W. (2013). Generic legislation of new psychoactive drugs. *J Psychopharmacol*, 27(3), 317-324. doi:10.1177/0269881112474525
- van Amsterdam, J. G., Nabben, T., Keiman, D., Haanschoten, G., & Korf, D. (2015). Exploring the Attractiveness of New Psychoactive Substances (NPS) among Experienced Drug Users. *J Psychoactive Drugs*, 47(3), 177-181. doi:10.1080/02791072.2015.1048840
- Van Breda, A. (2005). Steps to analysing multiple-group NGT data. *The Social Work Practitioner-Researcher*, 17, 1-14.
- Van De Ven, & Delbecq. (1974). The effectiveness of nominal, Delphi, and interacting group decision making processes. *Academy of management Journal*, 17(4), 605-621.
- van der Gouwe, D., Brunt, T. M., van Laar, M., & van der Pol, P. (2016). Purity, adulteration and price of drugs bought on-line versus off-line in the Netherlands. *Addiction*, 1-9. doi:10.1111/add.13720
- Van Havere, T. (2012). *Prevalence and prevention of substance use in nightlife*. Dissertation). Retrieved from [https://expertise.hogent.be/files/10345888 ...](https://expertise.hogent.be/files/10345888...)

- Van Havere, T., Tutenges, S., De Maeyer, J., Broekaert, E., & Vanderplasschen, W. (2015). 'Keep an eye on your friends, even when you don't know them': Drug use and harm reduction in the Goa trance scene in Belgium. *Drugs: Education, Prevention & Policy*, 22(3), 239-247.
doi:10.3109/09687637.2014.899985
- Vander Laenen, F. (2009). The Nominal Group Technique, a participative research technique holding great potential for criminology. In M. Cools, De Kimpe, S., De Ruyver, B., Easton, M., Pauwels, L., Ponsaers, P., Vander Beken, T., Vander Laenen, F., Vande Walle, G., Vermeulen, G.(eds.) (Ed.), *Contemporary Issues in the Empirical Study of Crime* (1 ed., pp. 109-134).
- Vander Laenen, F. (2010). Focusgroepen. In *Kwalitatieve methoden en technieken in de criminologie* (pp. 233-260): Acco.
- Vander Laenen, F. (2015). Not just another focus group: making the case for the nominal group technique in criminology. *Crime Science*, 4(1). doi:10.1186/s40163-014-0016-z
- Vander Laenen, F., Favril, L., & Decorte, T. (2016). Prioriteiten voor het lokale harm reduction-beleid: drugsgebruikers als sleutelfiguren. *Verslaving*, 12(2), 106-120.
- Vander Laenen, F., Nicaise, P., Decorte, T., De Maeyer, J., De Ruyver, B., & Smith, P. (2018). *Feasibility study on drug consumption rooms in Belgium*. Retrieved from Brussels:
- Vander Laenen, F., Vanderplasschen, W., Smet, V., De Maeyer, J., Buckinx, M., Van Audenhove, S., . . . De Ruyver, B. (2013). *Analysis and optimization of substitution treatment in Belgium*. Gent: Academia Press.
- Vandevelde, S., Vander Laenen, F., Vanderplasschen, W., & al., e. (2016). *PROcess and Outcome Study of Prison-basEd Registration points (PROSPER): report*. Brussels: Belgian Scientific Policy.
- Wallach, J., & Brandt, S. D. (2018). 1,2-Diarylethylamine- and Ketamine-Based New Psychoactive Substances. In H. H. Maurer & S. D. Brandt (Eds.), *New Psychoactive Substances; Pharmacology, Clinical, Forensic and Analytical Toxicology* (Vol. 252, pp. 305-352). Switzerland: Springer.
- WHO. (1994). Lexicon of alcohol and drug terms. In (pp. 69). Geneva: World Health Organisation.
- Wilkins. (2014). A critical first assessment of the new pre-market approval regime for new psychoactive substances (NPS) in New Zealand. *Addiction*, 109(10), 1580-1586. doi:10.1111/add.12484
- Wilkins, Rychert, M., Byrska, B., Van Hout, M. C., Corazza, O., & Roman-Urrestarazu, A. (2017). Exploring Innovative Policy Responses to NPS and 'Legal Highs' in New Zealand, Poland, Republic of Ireland and the UK. In *Novel Psychoactive Substances* (pp. 57-74).
- Wille, S., Richeval, C., Nachon-Phanithavong, M., Gaulier, J., Di Fazio, V., Humbert, L., . . . Allorge, D. (2018). Prevalence of new psychoactive substances and prescription drugs in the Belgian driving under the influence of drugs population. *Drug Testing and Analysis*, 10(3), 539-547.
- Windelinckx, T. (2018). *Evaluatieonderzoek partnerorganisatie Spuitenruil 2017*. Retrieved from
- Winstock. (2019). GDS 2019 Key Findings Report; executive summary. *Annual Survey Reports*, 12.
- Winstock, & Ramsey. (2010). Legal highs and the challenges for policy makers. *Addiction*, 105(10), 1685-1687.
doi:10.1111/j.1360-0443.2010.03163.x

- Wood, D. M., Ceronie, B., & Dargan, P. I. (2016). Healthcare professionals are less confident in managing acute toxicity related to the use of new psychoactive substances (NPS) compared with classical recreational drugs. *QJM*, *109*(8), 527-529. doi:10.1093/qjmed/hcv208
- Wood, D. M., & Dargan, P. I. (2012). Understanding how data triangulation identifies acute toxicity of novel psychoactive drugs. *J Med Toxicol*, *8*(3), 300-303. doi:10.1007/s13181-012-0241-3
- Wortley, S., Tong, A., & Howard, K. (2016). Preferences for engagement in health technology assessment decision-making: a nominal group technique with members of the public. *BMJ Open*, *6*(2), e010265. doi:10.1136/bmjopen-2015-010265
- Young, M. M., Dubeau, C., & Corazza, O. (2015). Detecting a signal in the noise: monitoring the global spread of novel psychoactive substances using media and other open-source information. *Human Psychopharmacology: Clinical and Experimental*, *30*(4), 319-326.
- Zaami, S., Busardò, F., Pichini, S., Pacifici, R., & Marinelli, E. (2019). The value of toxicological and forensic analyses in the global challenge to health risks caused by new psychoactive substances. *European review for medical and pharmacological sciences*, *23*(14), 6008.
- Zamengo, L., Frison, G., Bettin, C., & Sciarrone, R. (2014). Understanding the risks associated with the use of new psychoactive substances (NPS): high variability of active ingredients concentration, mislabelled preparations, multiple psychoactive substances in single products. *Toxicol Lett*, *229*(1), 220-228. doi:10.1016/j.toxlet.2014.06.012
- Zamengo, L., Frison, G., & Zwitser, G. (2018). Understanding and managing the new psychoactive substances phenomenon: a holistic approach. *Journal of public health policy*, 1-19.
- Zanda, M., & Fattore, L. (2017). Novel Psychoactive Substances: A New Behavioral and Mental Health Threat. In *Addictive Substances and Neurological Disease* (pp. 341-353): Elsevier.
- Zawilska, & Wojcieszak. (2018). Novel Psychoactive Substances: Classification and General Information. In *Synthetic Cathinones* (pp. 11-24): Springer International Publishing AG, part of Springer Nature 2018.
- Zawilska, & Wojcieszak, J. (2019). An expanding world of new psychoactive substances—designer benzodiazepines. *Neurotoxicology*, *73*, 8-16. doi:<https://doi.org/10.1016/j.neuro.2019.02.015>
- Zawilska, J. B. (2015). Chapter Thirteen - "Legal Highs" – An Emerging Epidemic of Novel Psychoactive Substances. In P. Taba, A. Lees, & K. Sikk (Eds.), *International Review of Neurobiology* (Vol. 120, pp. 273-300): Academic Press.