European Monitoring Centre
for Drugs and Drug Addiction

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PERSPECTIVES ON DRUGS

Health responses to new psychoactive substances

The emergence of new psychoactive substances (NPS) over the last decade has posed a major challenge to drug policy. While the limited available data indicates that prevalence levels of NPS use are relatively low in the general European population, there are concerns around more problematic forms of use and harms in particular drug using populations. A number of public health concerns have arisen as a consequence of their use, although the real extent of these harms across Europe remains unknown.

Initial responses to NPS availability in Europe have largely been regulatory, focusing on their supply using legislative tools but, as the phenomenon evolves, it has increasingly become a priority to formulate and implement effective public health responses. This analysis takes a look at some of the key risk groups among which NPS are being used and the health responses currently being employed across various intervention settings.

Responding to NPS

The emergence of numerous new psychoactive substances (NPS) on the global drug market over the last decade and reports of problems associated with their use, represents a significant challenge to drug policy and practice (UNODC, 2013, EMCDDA, 2015a). While prevalence levels of NPS use remain low in the general European population, there is concern about problematic forms of use and harms in particular risk groups across different health and social settings. This includes concerns around use among young people, participants in nightlife environments, men who have sex with men (MSM), people who inject drugs, and prison populations. In terms of drug demand reduction interventions, these populations can be accessed through a range of health and social services including prevention activities, acute care management, drug treatment and harm reduction.

This analysis takes a look at the health responses currently being employed across various intervention settings where users of NPS may seek help or where harms or risk behaviours associated with NPS have been reported. These settings include schools, nightlife venues, sexual health services,

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emcdda.europa.eu/topics/pods/health-responses-to-nps

emergency and clinical services, low-threshold services, specialised drug treatment settings and custodial settings.

School settings

Schools are the most common setting for delivery of drug prevention and education in the EU (EMCDDA, 2015b), and whilst there is a developing evidence base for effective approaches and programmes, these activities tend to be focused on drugs such as cannabis, or target substance-related risk factors and harms in general (EMCDDA, 2015c; Faggiano et al., 2014).

As NPS prevalence is low in the school age population (European Commission, 2014), universal approaches, which target all students regardless of their level of risk of NPS use, are unlikely to be cost-effective. If concerns due to NPs use among some students arise, existing prevention programmes may be adapted to include NPS. However, it is important that these are only delivered as part of a carefully monitored and evaluated programme, as a number of existing drug prevention programmes and approaches have been evaluated as being ineffective or even associated with negative consequences (e.g. standalone mass media and information campaigns). It is therefore recommended that school-based NPS-related prevention activities should only be delivered as part of generic prevention programmes for which there is evidence of effectiveness. Evidence-based resources such as the European Drug Prevention Quality Standards (Brotherhood and Sumnall, 2011) and other tools (UNODC, 2013) may prove useful in the development and refinement of such NPS-related prevention activities in schools.

Nightlife settings

A range of health responses to drug use and related harms have been applied to nightlife settings such as bars, pubs, nightclubs, discotheques or music festivals. These include changes to the physical environment (e.g. chill out rooms, crowd control, better ventilation), the provision of information, education, outreach, drug checking and crisis management.

There are a growing number of examples of both on- and off- site drug checking services across Europe which provide the chemical analysis of drugs which have been submitted for testing by users. Such facilities are presented as an opportunity for users to make an informed decision about their intended drug use, and some service providers also make the most of the interaction to offer personalised advice and harm reduction information, screening and brief interventions (TEDI, 2013). However, there is a need for a better understanding of the optimal content, framing, and targeting of communication about potentially harmful drugs, including NPS. Data from testing may also be directed to policymakers and health professionals such as emergency medical professionals who may benefit from information on the nature of drugs in circulation in their geographical area. The aims and impact of nightlife health responses are not always sufficiently defined or evaluated, and there is limited information on NPS-specific responses in nightlife settings. However, health responses and interventions aimed at established drugs and alcohol in nightlife settings are relevant and may be adapted to respond to NPS use and related harms (e.g. the EU Healthy Nightlife Toolbox; EMCDDA Best practice portal entries on partygoers and nightlife).

Emergency and clinical services

Despite limited understanding of the acute toxicity of many NPS, difficulties in identifying substances consumed (i.e. through self-report or toxicological screening), and the high proportion of polysubstance use, staff working in emergency settings have been required to develop acute care management and best practice protocols in response to an increasing number of NPS-related presentations. Clinical management is generally orientated towards providing symptomatic care, as NPS toxicity is likely to be similar to that produced by drugs in equivalent pharmacological classes (Dines et al., 2015). However, there are notable exceptions, such as the dissociative methoxetamine, which illustrate gaps in current clinical understanding. Whilst most NPS-related cases will be discharged within a few hours of presentation, there may be opportunities for medical staff to provide screening, brief advice, and referrals to community support. Opportunities for emergency care and support are not just limited to hospital settings. On-site medical support plays an important role in multidisciplinary outreach responses in nightlife and festival settings and guidelines have been developed to improve pre-hospital management and identification of individuals that require immediate hospital assessment by nightlife medical staff (Euro-DEN, 2015).

Sexual health settings

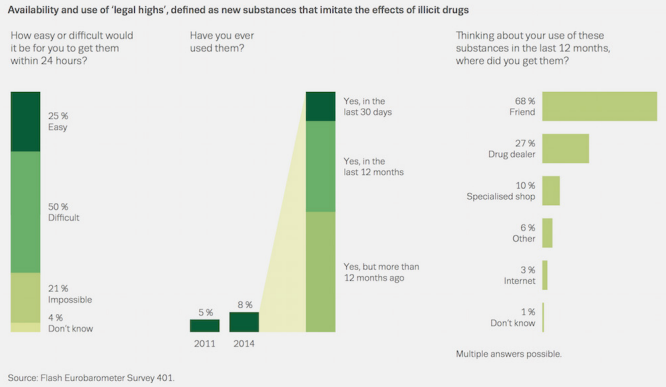
Increasing evidence is becoming available on how men who have sex with men (MSM) are using synthetic cathinones, such as mephedrone, alongside traditional stimulants, for sexual purposes (Bourne et al, 2014). This is often referred to as 'chemsex'. Studies also report injection of cathinones (and other stimulants) among MSM during sexual practices known as 'slamming', with a high risk of infections of both HIV and Hepatitis C linked to sharing of injecting material. There exist several barriers to MSM with drug problems accessing services. These include stigma, a lack of cultural competence among traditional drug service providers, MSM not self-identifying their drug use as problematic, a lack of awareness of available drug services among MSM, and a lack of specific services for the use of chemsex drugs. A preference for MSM to engage with sexual health services and a need for combined sexual health and drug interventions, has led some countries to focus on the development of joint drug and sexual health services targeted at this population. With regards to reducing harms associated with the sexual risk behaviour involved in chemsex, specialist support services for MSM with HIV may also be useful in order to reduce harms and prevent the transmission of HIV and other sexually transmitted infections. However, there is currently a lack of data on use and harms among this population to inform appropriate harm reduction services, and a lack of evaluation of the effectiveness of the approaches used (Bourne et al., 2015). Guidance for clinicians in responding to the use and associated harms of drugs for chemsex purposes is provided by the Novel Psychoactive Treatment UK Network NEPTUNE (Abdulrahim et al., 2016). This guidance suggests that regardless of setting, the provision of clear, honest and non-judgemental advice on chemsex and information on how to manage potential harms should be delivered by culturally competent individuals with an understanding of how cultural issues influence patterns of drug use and harms in this population.

Low-threshold settings

Low-threshold services provide support for drug users on a regular basis, and frequently deliver harm reduction activities such as needle exchange, advice, information and assistance relating to housing, hygiene, and sexual health. Given a lack of data on the use, harms, and effectiveness of low-threshold responses to NPS, existing effective approaches in reducing drug use and associated harms in this setting may be adapted to incorporate NPS. In general, low-threshold and harm reduction activities for NPS will mirror those delivered to people who take established drugs but there are additional considerations with respect to the injection of NPS as these users may be at an increased risk

Facts and figures

The 2014 Flash Eurobarometer on young people and drugs, a telephone survey of 13 128 young adults aged 15–24 in the 28 EU Member States, found that **8 % of respondents reported lifetime use** of 'new substances that imitate the effects of illicit drugs such as cannabis, cocaine, ecstasy, etc.', with **4 % reporting use in the last year**



An analysis based on the 2014 internet-based Global Drug Survey data on drug use among young adults who self-identified as regular nightclub goers showed that the most common NPS self-reported to have been used last year were **ketamine (11 %), mephedrone (3 %), synthetic cannabinoids (3 %) and GHB (2 %)**. Overall, self-reported NPS use was on average much lower than self-reported use of so-called 'club drugs' such as ecstasy, amphetamines and cocaine (EMCDDA, 2015b).

A recent French survey revealed that 4 NPS users in 10 experience adverse effects following use, yet fewer than 4 % of them seek support from a health professional (Cadet-Taïrou, 2016).

'Chemsex' is defined as sex between men that occurs under the influence of drugs taken immediately preceding and/or during the sexual session and is associated with high-risk sexual behaviours and sexually transmitted infections (Bourne et al., 2014). A survey of HIV-positive patients attending 30 HIV clinics in England and Wales, found that nearly **a third (29 %) of MSM patients reported engaging in 'chemsex' in the past year and that one in ten reported 'slamming'** (Pufall et al., 2016).

In Hungary, **nearly 70 % of people who inject drugs and visit low-threshold services report to be primarily injecting synthetic cathinones** (Tarján, 2015). Injecting of cathinones is associated with high frequency and compulsive injecting, needle sharing, changes in injecting behaviours (e.g. groin injecting) and increased high risk sexual behaviours, with a risk for increased HIV and Hepatitis B transmission (Hedrich et al., 2013, Sarafis and Tsounis, 2014, Giese et al., 2015; Rácz et al., 2015).

Interactive element: videos

Five videos focusing on different settings and the responses to NPS, available on the EMCDDA website: www.emcdda.europa.eu/topics/pods/health-responses-to-nps

of harm due to the exposure to novel drugs with uncertain psychopharmacological and toxicological profiles. Whilst most NPS injectors are thought to have a history of opiate or amphetamine injection and therefore may already possess some harm reduction knowledge, it should not be assumed that this is sufficient to protect against novel harms associated with injecting NPS. The provision of sterile injection equipment/kits and condoms, and the dissemination of information on safe injecting among NPS injectors is important, although needle and syringe exchange programmes may need to adapt to the differing injection practices of stimulant injectors (e.g. more frequent injections). One example where specific low-threshold staff competence is already applied to reduce NPS-related harm is the EU-funded Local PASS project. Here, peers and (other) low-threshold staff collaborate as partners of a Local Emerging Drug Trend Panel in identifying new substances, risk groups and settings and by grading the risks. The Local Panel then takes a decision about the relevant interventions, according to type and risk level (http://www.localpass.eu/cms/local-pass-toolkit/). Where NPS injecting is observed in some Member States, increasing the accessibility and provision of sterile injecting equipment and the opportunity for blood borne virus testing in specialist services and community environments has been prioritised, as well as raising awareness of the risks of injection, particularly infection with HIV and Hepatitis C.

Specialised drug treatment settings

Structured drug treatment responses to NPS may in many respects resemble those offered to clients using drugs from similar pharmacological classes. There are currently no maintenance or substitute pharmacotherapies available for people with problematic NPS use, and with the exception of GHB/GBL, few recommendations for specific pharmacological management of withdrawal have been developed. The NEPTUNE guidelines (see box) suggest that

Demand for specialist treatment related to NPS problems in Europe remains limited, potentially reflecting overall low prevalence levels. However, increases in demands for specialist treatment related to problem use of synthetic cathinones are reported from France, Ireland, Poland, Romania and the United Kingdom (EMCDDA, 2016).

Findings from a European study (EURO-DEN) collecting annual data on all acute drug toxicity presentations to hospital emergency rooms in sixteen sentinel centres in 10 European countries showed that from a total of 5 529 presentations involving drugs, **NPS represented 5.6 % of all acute emergencies, with mephedrone and methedrone being the most common** (Dines et al., 2015). NPS-related symptoms were frequently associated with typical stimulant- or hallucinogen-like features which mostly included agitation, aggression, anxiety, palpitations and hallucinations.

A recent survey in English prisons found that **synthetic cannabinoids were reported by 10 % of surveyed inmates** and as the second most commonly used drug while in prison, after herbal cannabis (13 %). The use of synthetic cannabinoids in prisons is reported to be associated with increasing medical emergencies, deaths, bullying, violence and debt (HM Inspectorate of Prisons, 2015a and b).

the nature and intensity of the treatment offered should be related to the severity of the NPS problem with an assessment of the client's health and other consequences of use. Some clients presenting to treatment services may benefit from low intensity brief interventions based on general or tailored advice and even those showing NPS-related harm may benefit most from self-help approaches rather than referral to a structured intervention. Where problematic or high risk NPS use has been identified, individual/ group-based behavioural and psychosocial approaches (e.g. cognitive behavioural therapy, motivational interviewing, community reinforcement, and contingency management) or formal psychological therapies, delivered as part of a staged or stepped care approach, may be effective. Therefore, a thorough assessment of NPS use, consequences of use, and related needs is essential in such cases. It is also important that treatment provider competencies include the skills needed to screen, assess, and treat NPS problems; the provision of support to develop expertise on NPS (e.g. training on broad classes of drugs, effects, and harms); the development of 'cultural competencies' to work with a wide range of client groups; the identification of clear pathways to more specialised support for complex cases; and the establishment of networks to share evidence, develop guidelines, and facilitate professional development.

Prisons and custodial settings

With a lack of data on the use, nature, harms and effectiveness of responses to NPS use among the prison population, existing effective approaches in reducing drug use and associated harms among the prison population may be adapted to incorporate NPS. For NPS users who may also be consuming opioids and injecting NPS, existing evidence supports the prescription of opioid substitution treatment to reduce mortality and risky drug injecting behaviours in prison. Moreover, psychosocial treatment has been found to be effective in reducing reincarceration. However, due to an overall lack of research and information available on how to respond to NPS in custodial settings, it remains unclear as to whether such responses help prevent risky practices associated with NPS use in this setting.

Partnerships between prison health services and providers in the community may prove particularly important in supporting the delivery of health education and treatment interventions for NPS use and harms in prisons and in ensuring continuity of care upon prison entry and release. A toolkit for prison staff on the management of NPS-related health problems has been developed in the UK ([1]).

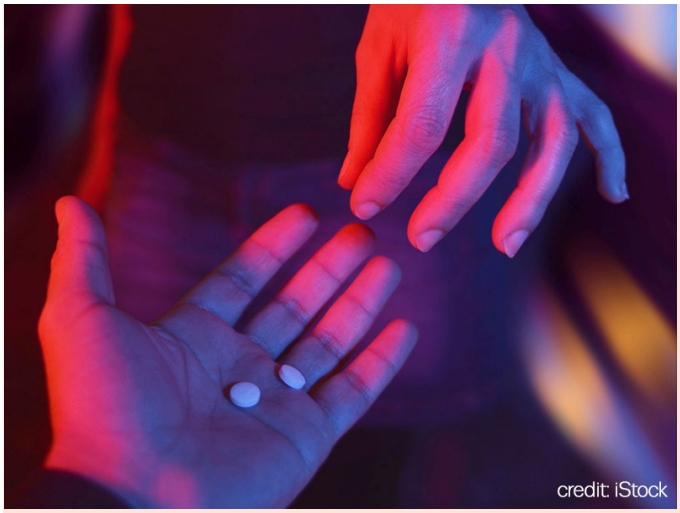
Conclusion

The NPS market is complex and the rapid emergence of novel products means that developing supportive health intervention responses is challenging. Existing and recommended interventions for NPS use and problems in various settings are largely based upon existing responses to other drugs. Adaptations of effective interventions should ensure that they reflect unique user group needs; the structural, cultural and social contexts where NPS are taken; new opportunities for engagement of user groups and delivery of services; and the requirement for the development of specific cultural competencies in those delivering such services. However, it is important to acknowledge that existing prevention, treatment and harm reduction responses to drug use still often lack strong evidence of effectiveness. Therefore, adapting these interventions to respond to NPS must proceed with caution and within a robust evaluative framework.

Further reading: *Health responses to new psychoactive substances* (EMCDDA, 2016).

([1]) www.nta.nhs.uk/uploads/new-psychoactive-substances-in-prisons%5B0%5D.pdf (last accessed June 2016).

NEPTUNE — Guidance for health professionals responding to NPS use and harms



The UK-based NEPTUNE guidance material has been developed to improve clinical practice in the management of harms resulting from the use of club drugs and novel psychoactive substances. It is aimed at clinicians working in a range of frontline settings, including drug treatment and recovery services, emergency departments, sexual health services, primary care and mental health services. It aims to improve confidence, competence and skills of clinicians and other professionals in the detection, assessment and management of the acute and chronic harms associated with the use of club drugs and novel psychoactive substances.

NEPTUNE specifically addresses the diverse new contexts and patterns of use, risk and harms of club drugs and NPS (e.g. clubbing, festivals or sexual behaviours).

A number of documents have been developed by NEPTUNE to support this process:

Guidance on the Clinical Management of Acute and Chronic Harms of Club Drugs and Novel Psychoactive Substance

This guidance focuses on the clinical management of acute and long terms harms resulting from use of club drugs and NPS. The guidance is based on the systematic review and critical appraisal of the English language literature. Where evidence was lacking, clinical consensus was sought from the multi-disciplinary group of expert advisors to the project.

In order to deal with the ever-growing number of club drugs and NPS, NEPTUNE has adapted the following approach:

- Club drugs and NPS are classified, based on their primary effects as depressants, stimulants and hallucinogens. In addition, the synthetic cannabinoid receptor agonists (SCRAs) are treated as a separate category, largely for reasons relating to their availability and clinical management.
- The guidance focuses in particular on commonly used club drugs and NPS including, but not limited to, GHB, ketamine, methamphetamine, mephedrone, MDMA, SCRAs and a range of hallucinogens.

http://neptune-clinical-guidance.co.uk/wp-content/uploads/2015/03/NEPTUNE-Guidance-March-2015.pdf (last accessed June 2016)

NEPTUNE Overview and Recommendations on Club Drug Use among Lesbian, Gay, Bisexual and Transgender (LGBT) People

This overview describes patterns of club drug use and NPS use among LGBT populations, as reported in the literature. It examines at the factors that may impact on the use of substances and discusses drug-related and other harms.

The document also looks in some detail at the use of drugs in a sexual context and at the risks associated with a particular pattern of drug use and sexual behaviours, sometimes referred to as 'chemsex', that has been particularly associated with risk and harm. The document addresses treatment responses to club drug use for MSM and is intended to guide improved service and treatment planning.

http://neptune-clinical-guidance.co.uk/wp-content/uploads/2016/02/neptune-club-drug-use-among-lgbt-people.pdf (last accessed June 2016)

For more information on NEPTUNE, see: www.neptune-clinical-guidance.co.uk

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