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Shake 'n Bake: The migration of 'Pervitin' to Ireland.

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Abstract

Home manufactured methamphetamine known as ‘Pervitin’ has historically dominated the drug market in the Czech and Slovak Republics. Seizures and surveillance data indicate some displacement of ‘Pervitin’ across Europe to areas of low reported prevalence (Nordic countries, Germany, Cyprus, Greece and Portugal). We present the first single case study of clandestine production of ‘Pervitin’ to Ireland, a country with low reporting history of methamphetamine. Content analysis yielded three descriptive themes; ‘Pervitin’ use, Decisions to Use and Effects; Legality and Hazards; and ‘Clandestine Manufacture.’ The study yielded unique insight into migration of this culturally specific drug, and how continued cultural contexts for use and ‘cooking’ remain intact when residing in the host country. Given its unique cultural nature and national characteristics, continued migration of Eastern European citizens across Europe, diffusion of clandestine production warrants continued surveillance. Appropriate service responses require culturally appropriate information and outreach services to Eastern European service users.

Key Words

Methamphetamine, Pervitin, Amphetamine Type Stimulant (ATS), migration, displacement

Introduction

Amphetamine-type stimulants (ATS) are controlled substances, with a number regulated for treatment of disorders such as attention deficit hyperactivity disorder (ADHD), narcolepsy, and depression (Berman et al. 2009). The use and clandestine manufacture of ATS such as amphetamine, d-amphetamine, methamphetamine, methylphenidate, 3,4-methylenedioxymethamphetamine (MDMA), cathinone, methcathinone, pseudoephedrine, fenetylline, and ephedrine is reported worldwide, and in some countries surpasses that of cocaine or opiates (Mackey et al. 2014; Nikolaou et al. 2014; Tait et al. 2012; UNODC 2015). The UNODC (2015) underscores the rapidly expanding market of ATS globally, with increasing seizures of methamphetamine from 34 tons in 2009 to 88 tons in 2013. Methamphetamine has a high dependence liability (Murray 1998; Wolkoff 1997). In 2013, methamphetamine treatment accounted for the majority of treatment cases in many countries (UNODC 2015).

Methamphetamine is a significant problem in East and South-East Asia ('Yaba'; 'Ice'; 'Shabu') (Kulsudjarit 2004), North America ('Crystal Meth', 'Crank') and Australia ('Ice') (UNODC 2015) and more recently indicated as new trend in Europe with regard to increasing availability of crystalline methamphetamine in European countries such as Germany, Greece ('Sisa') and Turkey where use of methamphetamine has not been reported before (EMCDDA 2014a,b). Methamphetamine has historically dominated the drug market in the Czech and Slovak Republics ('Pervitin', 'Vint', 'Shirka') (Csete 2012; Grund et al. 2009; Záborský 2007). With the exception of the Czech and Slovak Republic, a low prevalence of methamphetamine use was previously reported in most European member states (Bruggisser et al. 2010; Csemy et al. 2002; Griffith et al. 2008; Krakowiak et al. 2010; Maxwell and Rutkowski 2008; McKetin et al. 2008; Schifano et al. 2010; Sudakin and Power 2009;

Verschraagen et al. 2007). Rising seizures are reported in the Baltics and Eastern Europe (Belarus, Latvia, Lithuania and the Republic of Moldova), and with diffusion of use to further afield in the Nordic countries, Germany, Cyprus, Greece and Portugal (Degenhardt et al. 2010; EMCDDA 2014a,b; Griffiths et al. 2008; Pietsch et al. 2013; UNODC 2015).

EMCDDA reporting in recent times has underscored the unique cultural nature and national characteristics of methamphetamine use in comparison to other illicit drug use across Europe. Popularity and appetite for methamphetamine in the Czech Republic originated from user ingenuity once detached from imported drugs by the Iron Curtain (Kulish 2007). However, regional trends in methamphetamine markets have been observed in the 2013 EMCDDA Trendspotter study, with distinct use patterns, production, and marketing of the drug (EMCDDA 2014a,b). Factors stimulating the diffusion of methamphetamine from the Czech Republic into Europe whilst not significant and impeded by the presence of other stimulant drugs (cocaine, amphetamine and MDMA) (Griffiths et al. 2008) appear to centre on its appeal as alternative to cocaine, along with the migrant flow of Czech workers within the EU domain (Kulish 2007). More recently, the supply diffusion of methamphetamine observed across Europe has indicated the potential replacement of amphetamine in the stimulant markets, from marginalised problematic drug user populations who smoke and inject, into that of socially integrated recreational users who sniff or inject, and the displacement of production itself (EMCDDA-Europol 2009). In the UK, methamphetamine use is appearing among high risk more affluent groups of drug users such as men who have sex with men, and engage in ‘chemsex’ activity (MSM) (Bourne et al. 2015; EMCDDA 2014a;.

In Central and Eastern Europe, the tradition of home manufacture of ‘Pervitin’ is culturally and historically grounded (Griffiths et al. 2008; Grund and Merkinaitė 2009; Grund et al.

2009; Mravčík et al. 2008; Van Hout 2014; Zábanský 2007). Production in the Czech Republic generally takes place in ‘kitchen labs’ for own personal use (Zábanský 2007). Small groups of ‘cooks’ and their helpers characterised by close personal relationships in home production and self supply dominate the system (Miovský 2007). More recently, larger (mid to large scale) methamphetamine production sites were detected outside of the Czech Republic in the Slovak Republic, Belgium, Netherlands, Poland, Portugal, Ireland, United Kingdom and Germany (EMCDDA-Europol 2009). It can be easily produced from pre-cursor substances pseudoephedrine and ephedrine found as ingredients in common ‘over the counter’ cold remedies for symptomatic relief of colds, flu and other similar conditions (Topp et al. 2002). According to EMCDDA-Europol (2009) five known methamphetamine production methods exist in Europe, with the three most common known as lithium-ammonia, hypophosphorous acid/iodine and hydriodic acid/red phosphorus. All three are dependent on availability of pre-cursors, the expertises of ‘cooks’ and are relatively simple, one-step reactions of ephedrine or pseudo-ephedrine in cold remedies sold without prescription in pharmacies, using stainless steel or glass equipment. The generation of hydrogen gas, toxic fumes, and corrosive and flammable hazards are evident (Europol 2007a,b,c). Media reporting in 2015 highlights concern around the profitability of ‘Pervitin’ manufacture with increasing flow of medicines from Poland to the Czech Republic for home manufacture of methamphetamine, involvement of Vietnamese in the production cycle and trafficking into Germany (Bavaria and Saxony) (Prague Daily Monitor 2015).

Despite the low prevalence of methamphetamine use previously reported in most European Member States, in 2016, media reporting of ‘Pervitin’ in Ireland, a country with very low prevalence of methamphetamine use, increased. In 2015, the Health Service Executive issued a number of alerts regarding pharmacovigilance in dealing with Eastern European

customer requests for multiple packs of over the counter medicines containing pseudoephedrine (for example Sudafed ®), and often in large groups. The Irish Health Products Regulatory Authority had considered reducing the size of medicine packs in a bid to counter the manufacture of methamphetamine (Logan 2012), and in 2015, the Pharmaceutical Society of Ireland (PSI) issued a warning to pharmacists in relation to sales of pseudoephedrine-containing products. Harm reduction services indicated concerns around claims of methamphetamine sold by Nigerian gangs in Dublin, as found to contain synthetic psycho-active methylenedioxypropylamphetamine (MDPV) and pyrrolidinopentiophenone (PVP) some of the newer novel psychoactive substances (NPS). We present here the first known single case study of migrated ‘Pervitin’ home manufacture (hereafter referred to as ‘cooking’) into Ireland.

Method

Ethical approval for the study was granted at Waterford Institute of Technology, Republic of Ireland in October 2015. The study aimed to explore migrancy and the cultural choices and decision making for Eastern European drug users resident in Ireland to use and make ‘Pervitin’. We utilised the Privileged Access Interviewing approach which has been successfully utilised in accessing hard to reach populations, particularly PWID where outsiders are viewed with mistrust and suspicion, and which achieves rich data retrieval in short timeframes (March et al. 2006; Taylor and Kearney 2005; Van Hout and Bingham 2012). The case was recruited from a known existing network of Eastern European accessing harm reduction services in Ireland. Despite several attempts to recruit members from within the ‘cooking’ group in terms of the key actors, this was not successful due to the closed and hidden nature of the network itself. Hence we report here on the single case observations of

the processes and use patterns of ‘Pervitin’ within a closed Eastern European network in Dublin, Ireland.

The single case was interviewed twice at two time points six months apart following informed consent, and described her observations and experiences in relation to a known group of Czech and Slovakian ‘Pervitin’ cookers and users in Dublin, Ireland. Interview themes centred on cultural preferences to bring ‘Pervitin’ to Ireland, migration of ‘Pervitin’ specific cooking and using practices into Ireland, dynamics, meanings and settings around ‘cooking’, interplay with ‘outsiders’ and the existing Irish street drug market, sourcing of precursor ingredients and clandestine home cooking practices, accidents and risks of exposure. Interviews were conducted in English, the case’s second language, were in depth and lasted 90 minutes on both occasions. She did not receive compensation. We asked the case to describe and reflect on her experiences with ‘Pervitin’, and observations of ‘Pervitin’ cooking over the course of a year. Memos and observational and analytical field notes were included in the analysis notes (Caeili 2001). Narratives were analysed by delineating the data into units of meaning and clustering into emergent thematic patterns within the holistic context (Moustakas 1994). ‘Outliers’ were analysed by the team under conditions by which outliers could be interpreted (De Castro 2003).

Results:

Findings are illustrative of the use and production of ‘Pervitin’ in Ireland among Eastern European migrants. Three central descriptive themes emerged from the data, namely; ‘Pervitin’ use, Decisions to Use and Effects; Legality and Hazards; and ‘Clandestine Manufacture.’

Pervitin Use, Decisions to Use and Effects

‘Pervitin’ pricing, dosing properties, and effects of ‘Pervitin’ use were described by the case. Route of administration was reported as being primarily inhalation by others or insufflation which was the preferred route by the case herself. Injecting use of ‘Pervitin’ was not reported.

“I snort it, always. Other people that I know they’d smoke it. That wouldn’t be for me, I dunno I find the addiction is stronger there if you smoke it never mind injecting or anything like that, that’s not me. Snorting, fine you can control.”

Potency of ‘Pervitin’ was said to be very strong and as a result dosing in small quantities was described by our case, and advocated within user networks of Czech and Slovak immigrants. Moderated controlled use appeared normalised within these networks.

“The Piko is so strong so strong, you do literally, say you have a straw, the opening of a straw is what I do and that would get me through the day, easily. And the longer you don’t take it, the longer it would work then when you go back on it.”

She reported no compulsion to re-dose throughout the day if using as “*mama’s little helper*” or at night when socialising with friends.

“If I do take more, it’s because I want to, not because I feel the need”

“Mama’s little helper, because it’s just to get you through the day kind of a thing, you know.”

Cost was the only reported negative outcome of ‘Pervitin’ use.

“€150 a gram. Quite expensive and you never know what you’re getting.”

Poor quality of Illicit substances in Ireland such as cocaine was reported as a motive to purchase and consume home made ‘Pervitin’

“The Irish stuff isn’t good, like if somebody says ‘oh I have this cocaine’, for me I’d say ‘no’ because I know that the Piko [‘Pervitin’] is always good”

Methamphetamine type effects such as euphoria, lack of sleep or appetite, energy, increased well-being and sociability were described. Chronic outcomes centred on weight loss.

“You don’t need to drink, you can drink if you want – you can drink alcohol like crazy but you’re not getting drunk, and you are talking non-stop, and all of a sudden it’s morning you know.”

While the case described herself as *“I don’t think I am a person who has tendencies to addiction”* as she did refer to development of tolerance and withdrawals over time.

“When it’s gone, I notice my behaviour changes a little bit. I don’t feel that I am looking for more, but only by reading up on it then, it’s like “Jesus yeah I do get a little bit more short tempered” or a bit more aggressive.”

Clandestine Manufacture

Cooking of ‘Pervitin’ by migrated groups of Czech and Slovak individuals in Ireland was described, and appeared central to their cultural networks in Ireland.

“Like it’s not coming from, imported in another country, it’s actually cooked in Ireland. I really thought it was coming from Czech Republic, but they are actually Czech and Slovakian living in Dublin’

This occurred in private homes with a ‘cook’ as experienced clandestine chemist, and with peer users assisting. Other factors implicating decisions to purchase and use home-made ‘Pervitin’ centred on presence of different ‘cooks’ using different processes and ingredients, and the wide variability of quality and consistency of effect.

“It’s like Breaking Bad style, like they have it in the kitchen and then they’re cooking it up, so it can be hit and miss. You never know because it’s different people cooking it.”

The ingredients (for example over the counter cold medications containing pseudoephedrine) required to make 'Pervitin' in the home are purchased in pharmacies in Ireland, as reported by the case.

"they are definitely buying the ingredients in Ireland"

The case reported intentions of the cooks and users of 'Pervitin' to filter into the Irish drugs market as market competitor of existing street stimulants.

"the guy whoever cooks it in Dublin, they are hoping to get into the Irish market because the Irish are so - once you have those people or the young twenty year old like, once you get them hooked, I could see dangers there"

Legality and Hazards

The case described how she did not worry about the legal consequences of possessing 'Pervitin'. This perception of security was grounded in her storage of the drug in her fridge at home. Street use and street dealing was not referred to, and 'Pervitin' appeared to be somewhat normalised by virtue of its manufacture and use within the home.

"The cops - no. I don't carry it around with me either it's in my fridge you know."

The case was aware of hazards in safe storage in relation to paediatric consumption and accidental overdose. Her primary fear was of social services deeming her dependent on drugs and unable to care for her child.

"I am a single mum it would worry me a bit if whoever would say to the social and they would come out here and have a look, That would be my worry as a mother, a fear, that's not really the law."

Discussion

This study is one of the first efforts in the literature to address and examine the migration of ‘Pervitin’ use and production to Ireland. Since no data have been available in Ireland so far, the use of this method as a first approach was justifiable. The study yielded unique insight into migration of this culturally specific drug, ‘Pervitin’ and how continued cultural contexts for use and ‘cooking’ remain intact when residing in the host country. Whilst we recognise the confines of this approach (Baxter and Jack 2008; Yin 2003), the exploration of this recent novel and culturally specific drug practice within eastern European cultural networks in Ireland is unique and merited. The study yielded rich and innovative insights into the migration of the culturally specific drug, ‘Pervitin’ with Czech citizens and how continued cultural contexts for use and manufacture remain intact when residing in the host country. The diffusion of methamphetamine in Europe, whilst culturally bound to the Czech and Slovak Republics, is to date impeded by the strong market of traditional stimulant drugs (cocaine, amphetamine, MDMA) (Griffiths et al. 2008) and NPS. Griffiths et al. (2008) however underscore the need to monitor the spread of methamphetamines popularity in Europe as influenced by drug market factors, ‘leakage’ from areas of high prevalence, travel of young Europeans into areas of high prevalence, and user perceptions around desirability and cost benefit when compared to other stimulants. Despite anecdotal reporting of NPS branded as methamphetamine sold on Irish streets, this form of drug use and production appeared insular and confined by cultural boundaries.

Potency and cost were both high, and appeared to further solidify the exclusivity of this drug within these close networks of Czech migrants. Similar to extant literature in their originating country, ‘Pervitin’ is prepared by small, close knit groups of users, in this instance not injecting drug users, and revolving around the ‘cook’ (Grund 2005; Grund et al. 2009;

Miovský 2007; Van Hout 2014;). Home-made labs represent atypical risk environments (Rhodes, 2009; Miovský et al. 2015) with synthesis taking place in primitive settings, with substandard equipment and ingredients (Grund et al. 2009). Equally concerning are the risks of contamination, absence of correct protocols and purification methods, and highly toxic reactants (Alves et al. 2015; Caldicott et al. 2005; Grund et al. 2013; Martyny et al. 2007; Ning Chiu et al. 2011;). Hazards in production centre on the potential for life threatening injuries in places serving simultaneously as lab and home due to fires and explosions, and the exposure to toxic by-products of bystanders and children (Linberry and Bostwick 2006). If children are present, concerns are evident with regard to environmental hazards and paediatric consumption (Grant 2007; Mecham and Melini 2002;).

Acute effects reported were similar to those reported in the literature and centred on disinhibition, euphoria, decreased need for food and sleep, increased sociability, wellbeing and energy, and with a high probability of dependence (Sheridan et al. 2006). Adverse health consequences centre on the emergent, acute, subacute, and chronic effects on cardiac, neurologic, pulmonary, dental, and other systems (Linberry and Bostwick 2006). Given the range of health related harms associated with problematic use and the potential progression toward injecting use and risk of blood borne virus transmission (Hepatitis C/ HIV), public health and harm reduction surveillance is warranted.

Conclusion

Given its unique cultural nature and national characteristics, continued migration of Eastern European citizens across Europe, diffusion of clandestine production of ‘Pervitin’ warrants continued surveillance. In Ireland, given the recent regulatory concerns, and harm reduction service reporting around this issue, continued research is warranted in order to inform appropriate service responses. Such service responses require culturally appropriate information and outreach services to Eastern European service users. Equally warranted is the specialised training of critical care staff in meth lab injuries (Santos et al. 2005).

Conflict of interest statement

Authors Marie Claire Van Hout and Author Evelyn Hearne declare that they have no conflict of interest.

References

- Alves, E. A., Grund, J. P., Afonso, C. M., Netto, A. D., Carvalho, F. & Dinis-Oliveira, R. J. (2015). The harmful chemistry behind krokodil (desomorphine) synthesis and mechanisms of toxicity. *Forensic Science International*, 249, 207-213.
- Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *Qualitative Report*, 13(4), 544–559.
- Berman, S. M., Kuczenski, R., McCracken, J. T. & London, E. D. (2009). Potential Adverse Effects of Amphetamine Treatment on Brain and Behavior: A Review. *Molecular Psychiatry*, 14(2), 123-142.
- Bourne, A., Reid, D., Hickson, F., Torres-Rueda, S., Steinberg, P. & Weatherburn, P. (2015). "Chemsex" and harm reduction need among gay men in South London. *International Journal of Drug Policy*, 26, 1171-1176.
- Bruggisser, M., Ceschi, A., Bodmer, M., Wilks, M. F., Kupferschmidt, H. & Liechti, M.E. (2010). Retrospective analysis of stimulant abuse cases reported to the Swiss Toxicological Information Centre during 1997–2009. *Swiss Medical Weekly*, 140, w13115.
- Caelli, K. (2001). Engaging with phenomenology: Is it more of a challenge than it needs to be?" *Qualitative Health Research*, 11(2), 273-282.
- Caldicott, D. G. E., Pigou, P. E., Beattie, R. & Edwards, J. W. (2005). Clandestine drug laboratories in Australia and the potential for harm. *Australian and New Zealand Journal of Public Health*, 29(2), 155-162.
- Csete, J. (2012). *A Balancing Act. Policymaking on Illicit Drugs in the Czech Republic*. New York: Open Society Foundations.
- De Castro, A. (2003). Introduction to Giorgi's existential phenomenological research method. *Psicología desde el Caribe*, 11, 45-56.

Degenhardt, L., Mathers, B., Guarinieri, M., Panda, S., Phillips, B., Strathdee, S. A., Tyndall, M., Wiessing, L., Wodak, A., Howard, J. & the Reference Group to the United Nations on HIV and injecting drug use. (2010). Meth/amphetamine use and associated HIV: Implications for global policy and public health. *International Journal of Drug Policy*, 21, 347-358.

EMCDDA. (2014a). *Exploring methamphetamine trends in Europe*. Luxembourg: Publications Office of the European Union.

EMCDDA. (2014b). *Synthetic drug production in Europe, Perspectives on drugs*. Luxembourg: Publications Office of the European Union. Available at: <http://www.emcdda.europa.eu/topics/pods/synthetic-drugproduction>.

EMCDDA-Europol: Methamphetamine. (2009). *A European Union perspective in the global context*. Luxembourg: Publications Office of the European Union.

Europol. (2007a) *Presentation — Introduction to the world of synthetic drugs', Training in combating illicit synthetic drug laboratories*. The Hague: Europol.

Europol. (2007b). *Presentation — Methamphetamine part I', Training in combating illicit synthetic drug laboratories*. The Hague: Europol.

Europol. (2007c). *Presentation — Methamphetamine part II', Training in combating illicit synthetic drug laboratories*. The Hague: Europol.

Giorgi, A. (1985). Sketch of a psychological phenomenological method, in Giorgi, A. (Ed), *Phenomenology and psychological research* (pp. 8-22). Pittsburgh, PA: Duquesne University Press.

Grant, P. (2007). Evaluation of children removed from a clandestine methamphetamine laboratory. *Journal of Emergency Nursing*, 33(1), 31-41.

Griffiths, P., Mravcik, V., Lopez, D. & Klempova, D. (2008). Quite a lot of smoke but very limited fire--the use of methamphetamine in Europe. *Drug and Alcohol Review*, 27(3), 236-242.

- Grund, J.P. (2005). The eye of the needle: an ethno-epidemiological analysis of injecting drug use. In R. Pates, A. McBride, & K. Arnold (Eds.), *Injecting illicit drugs* (pp. 11-32). Malden, MA: Blackwell Publishing Inc.
- Grund, J. P. C. & Merkinaite, S. (2009). *Young people and injecting drug use in selected countries of Central and Eastern Europe*. Vilnius: Eurasian Harm Reduction Network.
- Grund, J. P. C., Záborský, T., Irwin, K. & Heimer, R. (2009). Stimulant use in Central and Eastern Europe: How recent social history shaped current drug consumption patterns. In R. Pates, & D. Riley (Eds.), *Interventions for amphetamine misuse* (pp.173-204). Oxford: Wiley-Blackwell.
- Grund, J. P. C., Latypov, A. & Harris, M. (2013). Breaking worse: the emergence of krokodil and excessive injuries among people who inject drugs in Eurasia. *International Journal of Drug Policy*, 24(4), 265-274.
- Krakowiak, A., Kotwica, M. & Sliwkiewicz, K. (2010). Poisonings with street drugs: a review of 1993–2008 data from the toxicology unit in Poland. *International Journal of Occupational Medicine and Environmental Health*, 23, 357-365.
- Kulish, N. (2007, November 23). Europe Fears That Meth Foothold Is Expanding. *The New York Times*. Retrieved from http://www.nytimes.com/2007/11/23/world/europe/23meth.html?_r=0
- Kulsudjarit, K. (2004). Drug Problem in Southeast and Southwest Asia. *Annals of the New York Academy of Sciences*, 1025, 446-457.
- Lineberry, T. W. & Bostwick, J. M. (2006). Methamphetamine abuse: a perfect storm of complications. *Mayo Clinic Proceedings*, 81(1), 77-84.
- Logan, P. (2012). Crystal meth. *Irish Pharmacy Union Review*, 22, 22.

- Mackey, S., Stewart, J. L., Connolly, C. G., Tapert, S. F. & Paulus, M. P. (2014). A voxel-based morphometry study of young occasional users of amphetamine-type stimulants and cocaine. *Drug and Alcohol Dependence*, 135, 104-111.
- March, J. C., Oviedo-Joekes, E. & Romero, M. (2006). Drugs and social exclusion in ten European cities. *European Addiction Research*, 12(1), 33-41.
- Martyny, J. W., Arbuckle, S. L., McCammon, Cs. Jr., Esswein, E. J., Erb, N. & Van Dyke, M. (2007). Chemical concentrations and contamination associated with clandestine methamphetamine laboratories. *Journal of Chemical Health and Safety*, 14(4), 40-52.
- Maxwell, J.A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, 62(3), 279–301.
- McKetin, R., Kozel, N., Douglas, J., Ali, R., Vicknasingam, B., Lund, J. & Li, J. H. (2008). The rise of methamphetamine in Southeast and East Asia. *Drug and Alcohol Review*, 27, 220-228.
- Mecham, N. & Melini, J. (2002). Unintentional victims: development of a protocol for the care of children exposed to chemicals at methamphetamine laboratories. *Pediatric Emergency Care*, 18(4), 327-332.
- Miovský, M. (2007). Changing patterns of drug use in the Czech Republic during the post-communist era: a qualitative study. *Journal of Drug Issues*, 37(1), 73-102.
- Miovský, M., Miller, P. M., Grund, J. P. C, Beláčková, V., Gabrhelík, R. & Libra, J. (2015). Academic education in addictology (addiction science) in the Czech Republic: Analysis of the (pre-1989) historical origins. *Nordic Studies on Alcohol and Drugs*, 32(5), 527-538.
- Moustakas, C. (1994), *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications.
- Mravčík, V., Chomynová, P., Orliková, B., Pešek, R., Škařupová, K., Škrdlantová, E., Miovská, L., Gajdošíková, H. & Vopravil, J. (2008), *Výroční zpráva o stavu ve věcech drog*

40 / 48 v České republice v roce, 2007 [The Czech Republic: drug situation, 2007]. Praha: Úřad vlády ČR [Prague: Office of the Czech Government].

Murray, J. B. (1998). Psychophysiological aspects of amphetamine-methamphetamine abuse. *Journal of Psychology*, 132(2), 227-237.

Nikolaou, P., Athanaselis, S., Papoutsis, I., Dona, A., Spiliopoulou, C., & Stefanidou, M. (2014). Emergency Issues of Clandestine Production of Drugs: The Case of “Sisa”- The Homemade Crystal Meth in Greece. *Journal of Forensic Toxicology*, 3(2).

Ning Chiu, Y., Leclerc, B. & Townsley, M. (2011). Crime Script Analysis of Drug Manufacturing In Clandestine Laboratories. *British Journal of Criminology*, 51(2), 355-374.

Pietsch, J., Paulick, T., Schulz, K., Flossel, U., Engel, A., Schmitter, S. & Schmid, U. (2013). Escalation of methamphetamine-related crime and fatalities in the Dresden region, Germany, between 2005 and 2011. *Forensic Science International*, 33(1-3), 51-54.

Prague Daily Monitor. (2015). Czechs produce pervitin for Germany from Polish medicines. *Prague Daily Monitor*. Retrieved from <http://praguemonitor.com/2015/07/03/czechs-produce-pervitin-germany-polish-medicines>

Rhodes, T. (2009). Risk environments and drug harms: a social science for harm reduction approach. *International Journal of Drug Policy*, 20(3), 193-201.

Santos, A. P., Wilson, A. K., Hornung, C. A., Polk, H. C., Rodriguez, J. L. & Franklin, G. A. (2005). Methamphetamine laboratory explosions: a new and emerging burn injury. *Journal of Burn Care and Rehabilitation*, 26(3), 228-232.

Schifano, F., Corkery, J., Naidoo, V., Oyefeso, A. & Ghodse, H. (2010). Overview of amphetamine-type stimulant mortality data – UK, 1997–2007. *Neuropsychobiology*, 61(3), 122-130.

Sheridan, J., Bennett, S., Coggan, C., Wheeler, A & McMillan, K. (2006). Injury associated with methamphetamine use: A review of the literature. *Harm Reduction Journal*, 3(1), 14.

- Sudakin, D. & Power, L. E. (2009). Regional and temporal variation in methamphetamine related incidents: applications of spatial and temporal scan statistics. *Clinical Toxicology*, 47(3), 243-247.
- Tait, R. J., McKetin, R., Kay-Lambkin, F., Bennett, K., Tam, A., Bennett, A., Geddes, J., Garrick, A., Christensen, H. & Griffiths, K. M. (2012). Breakingtheice: A protocol for a randomised controlled trial of an internet-based intervention addressing amphetamine-type stimulant use. *BMC Psychiatry*, 12, 67-75.
- Taylor, N. J. & Kearney, J. (2005). Researching hard-to-reach populations: Privileged access interviewers and drug using parents. *Sociological Research Online*, 10(2), 76.
- Topp, L., Degenhardt, L., Kaye, S. & Darke, S. (2002). The emergence of potent forms of methamphetamine in Sydney, Australia: A case study of the IDRS as a strategic early warning system. *Drug and Alcohol Review*, 21(4), 341-348.
- United Nations Office on Drugs and Crime (UNODC). (2015). *World Drug Report*. Vienna: United Nations publication.
- Van Hout, M.C. (2014). Kitchen chemistry: A scoping review of the diversionary use of pharmaceuticals for non-medicinal use and home production of drug solutions. *Drug Testing and Analysis*, 6(7-8), 778-787.
- Van Hout, M.C. & Bingham, T. (2012). A Costly Turn On: Patterns of use and perceived consequences of mephedrone based head shop products amongst Irish injectors. *International Journal of Drug Policy*, 23(3), 188-197.
- Wolkoff, D.A. (1997). Methamphetamine abuse: an overview for health care professionals. *Hawaii Medical Journal*, 56(2), 34-36.
- Yin, R.K. (2003). *Case study research: Design and methods* (3rd edition). Thousand Oaks, CA: Sage Publications.

Zábranský, T. (2007). Methamphetamine in the Czech Republic. *Journal of Drug Issues*, 37(1), 155-180.

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Brief Report

No conflict of interest declared.