

**‘I quit heroin for meow’: A qualitative study of the use of
new psychoactive substances among problem drug users
in South Wales**

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Abstract

New psychoactive substances (NPS) appeared on the drug market in 2005/2006 reportedly in an attempt to circumvent existing drug legislation. At first, they appealed mainly to young, recreational drug users. However, in the second half of 2012, reports from a few countries around Europe indicated that NPS had also started to make their way into the repertoires of long-term users of heroin, amphetamines and cocaine (often referred to as ‘problem drug users’). In the UK, the first reports of NPS use among problem drug users came from South Wales, in the autumn of 2012. Albeit anecdotally, drug agencies, local newspapers and the police in this area reported that long-term heroin users had switched to injecting a stimulant NPS – mephedrone, which was previously only popular among recreational drug users.

Little is known about NPS use among ‘problem drug users’ as research has tended to focus on recreational drug users. The thesis fills this gap in knowledge by investigating the motivations and characteristics of NPS use among a sample of problem drug users in South Wales.

Three qualitative research methods were used, in combination, to investigate NPS use at initiation, during periods of persistence and at desistance. This involved: (1) in-depth interviews with 26 problem drug users, 17 of which were repeated after an average of six months, (2) in-depth interviews with 11 experienced drug professionals, and (3) a 13-month microethnography at a busy drug treatment service operating in South Wales.

Zinberg’s (1984) classical *drug, set, setting* theoretical framework, not previously used in relation to NPS use, was adopted to disentangle the findings of this study. The analysis revealed that *setting* factors were most important in terms of initiation. Yet, a complex interplay of *set, setting* and *drug* were important for persistence and desistance. Stigma and ‘recovery capital’ played a particularly important role in explaining desistance.

The results of this study have implications for policy and practice in the field of substance misuse, most of which relate to access to, content and delivery of substance misuse treatment programmes. In addition, the findings can inform drug policy, drug legislation, criminal justice interventions, prevention and harm-reduction initiatives.

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CHAPTER ONE - Introduction

This thesis presents the findings from empirical qualitative research that examined the use of new psychoactive substances among a cohort of problem drug users in South Wales. The study, conducted between December 2014 and March 2016, was based on in-depth interviews with problem drug users and experienced drug professionals, as well as observations at a busy drug service in South Wales. This chapter briefly outlines the background of this research, the research context, the research focus and approach, the questions it sought to answer, the methodology employed, and finally, the structure of the thesis.

Background

New psychoactive substances (NPS) started to appear on drug markets around the world in 2005/2006 and today it is estimated that their number is in excess of six hundred (EMCDDA and Europol, 2017). In 2009/2010, mephedrone, a synthetic stimulant with effects similar to cocaine and ecstasy, and several synthetic cannabinoids, which are substances that mimic the effects of natural cannabis, made their way into the UK market and quickly became popular drugs among British drug users (Winstock et al., 2011).

Until a few years ago it seemed that these new psychoactive substances had appealed mainly to young, recreational drug users, and almost all of the academic studies that investigated this phenomenon focused on this particular population. However, in the second half of 2012, reports started to emerge from countries around Europe about the fact that NPS had started to make their way into the drug repertoires of a different population, namely ‘problem drug users’ (i.e. individuals who are ‘characterised by their use of opiates such as heroin, crack cocaine, and sometimes benzodiazepines or amphetamines, in patterns of daily or dependent use’ (Coomber et al., 2013:43)). More specifically, the use of mephedrone and related synthetic cathinones among problem drug users was documented in Ireland (Van Hout and Bingham, 2012), Hungary (Csak et al. 2013; Racz et al. 2013; Peterfi et al., 2014; Kapitany-Fevony et al. 2015), Poland (EMCDDA, 2015b), and Romania (Botescu et al., 2012; Romanian Reitox National Focal Point, 2013).

In the UK, the first reports about NPS use among problem drug users came from South Wales, in the autumn of 2012. Albeit anecdotally, drug agencies, local newspapers and the police in this area indicated that problem users of heroin had switched to injecting mephedrone, a stimulant NPS which was previously only popular among recreational drug users. This new development was reflected in data from the Harm Reduction Database for Wales, which

collects reports from needle and syringe programmes from across the country. Statistics released by Public Health Wales indicated that between 2011/12 and 2013/14 there was a substantial increase in the number of individuals who declared NPS (including mephedrone) as their primary drug of choice (Public Health Wales, 2015). Further evidence for the emergence and growth of this phenomenon in 2012/2013 was found in data about referrals to substance misuse treatment in Wales. The number of people admitted to treatment with mephedrone as their main substance of abuse increased significantly from 61 individuals in 2010/11 to 153 in 2011/12, to 651 in 2012/13 (Welsh National Database for Substance Misuse, 2014).

Research context

An extensive review of the published peer-reviewed literature on the use of NPS in general, and mephedrone and synthetic cannabinoids in particular, was conducted, and it revealed a number of limitations of this body of research. The first aspect to be noted is that studies on NPS use focus predominantly on recreational drug users, rather than problem drug users, leaving the latter group generally under-researched. Moreover, the vast majority of the research on NPS use among problem drug users is not based in the UK (for a few exceptions, see MacLeod et al., 2016 and Ralphs et al., 2017).

Secondly, the review exposed some significant differences between mephedrone use, on one hand, and synthetic cannabinoids, on the other hand. This suggests that investigating the use of NPS by looking at individual substances rather than at the entire group yields more accurate, refined results (Sutherland et al., 2017). However, many of the studies that investigate NPS use still prefer to look at these substances as a whole rather than individually.

Thirdly, there is a need for more studies that investigate motivations for NPS use, especially among problem drug users (also reported by Soussan and Kjellgren, 2016; MacLeod et al., 2016). To add to this quantitative problem, most of the studies that examine problem drug users' decisions to use NPS do not distinguish between motivations for initiation, on one hand, and continuation, on the other (one notable exception is MacLeod et al., 2016). This constitutes a limitation though, because, as Coomber et al. (2013:13) point out, '[e]xplanations as to why people start using drugs, known as initiation, may or may not be satisfactory in accounting for why people continue to take drugs [...]'.

Fourthly, very little knowledge is available at the moment about desistance from the use of NPS among problem drug users. A more detailed account of why and how these individuals

stop taking NPS is necessary to inform future prevention, recovery and/or harm-reduction policies and practices aimed at this particularly vulnerable population.

Finally, most of the research on motivations for NPS use among problem drug users is atheoretical, in the sense that authors who investigate this subject often limit themselves to listing various motivations for drug use decisions, without attempting to place them into a clear theoretical model, which would help to better understand the complex relationships between these factors (Zane and Sasao, 2013).

Research focus and approach

The research focus and approach of this study were informed by the aforementioned caveats in the existing research on NPS. Firstly, this thesis contributes to the scarce literature on NPS use among the specific group of problem drug users. It is, to date (June 2018), one of the few academic endeavours in the UK that has focused on this often-overlooked population, despite the fact that in Wales, the estimated number of problem drug users 2015/16 was just under 50,000 (Public Health Wales, 2017).

Secondly, as recently suggested by Soussan and Kjellgren (2016), mephedrone and synthetic cannabinoids are investigated separately throughout this thesis, thus improving the overall quality and accuracy of knowledge on the use of NPS.

Thirdly, this research investigates in detail problem drug users' motivations for using NPS, another topic that is currently under-researched. Additionally, informed by Shaw's (2002) approach, participants were asked to explain their decisions-making processes regarding their NPS use at each phase in their use of these substances, namely initiation, persistence and desistance. To date, only MacLeod et al. (2016) examined separately these different stages in problem drug users' use of NPS.

Finally, problem drug users' motivations to initiate, continue and stop using NPS were analysed using Zinberg's (1984) *drug, set, setting* classical theoretical framework. This approach has been used in the past (McDermot, 1993; Jansen, 1997; McElrath and McEvoy, 2000) and more recently (see for example Mui et al., 2014; Richert, 2015; and Lau et al., 2015) in order to illustrate and analyse how drug use can be related to a variety of factors on different but connected levels. Whereas this framework was used by these authors in the analysis of illicit substances such as heroin, ecstasy and cannabis, my thesis is, to the best of my knowledge, the first attempt to utilize the *drug, set, setting* framework in an exploration of NPS.

Research questions

The overall aim of this thesis was to examine carefully the motivations for, and characteristics of, the use of NPS among a cohort of problem drug users. Characteristics of use included such issues as methods of administration, locations of use, supply routes, patterns of use, and impact of NPS use on overall drug repertoires. With this objective in mind, the questions this research project sought to answer are as follows:

- 1) What NPS do problem drug users include in their repertoire of drug use?
- 2) Why do problem drug users start using NPS and what are the characteristics of their first use of NPS?
- 3) Why do problem drug users persist in using NPS and what are the characteristics of their persistent NPS use?
- 4) Why do problem drug users desist from NPS use and how do they maintain the decision to stop?

Research methods

In order to answer these research questions, I utilised a mixture of qualitative research methods. This included (a) in-depth interviews with 26 problem drug users (17 of which were revisited after an average period of six and a half months) and 11 experienced professionals, and (b) a 13-month micro-ethnography in the drop-in area of a busy drug treatment organisation based in South Wales.

A qualitative approach was chosen largely because the misuse of drugs is a complicated phenomenon and attempting to document and also explain it, requires the depth, detail and richness provided by qualitative data (Geertz, 1973). A combination of qualitative research methods was used because, as Brookman (2000:65) explains, the use of multiple data sources enables the researcher to 'reap the benefits of data triangulation'. Moreover, Inciardi et al. (2009:540) argue that this approach 'assure[s] a balanced perspective' of the topic under investigation.

Structure of thesis

Chapter Two of this thesis initially looks at the various terms and definitions that have been used historically with regard to NPS and briefly presents the different types that today make up this heterogeneous group of drugs. The second part of this chapter provides an overview of

how and where NPS are produced and the channels through which these are subsequently supplied to their users.

Chapter Three firstly focuses on the possible explanations for the emergence of NPS and their further diffusion in drug markets around the world and more specifically in the UK drug market. Subsequently, it addresses the prevalence of use of these substances by looking at the available evidence regarding the level of use of NPS among the general population and within more specific groups of individuals in the UK and elsewhere.

Chapter Four critically engages with the available research literature on the topic of NPS use, with particular focus on current knowledge about why and how problem drug users start, continue and stop using NPS.

The methodological particularities of this research are discussed thoroughly in Chapter Five of this thesis. Here I explain and justify the research methods utilised, how access to participants was gained, the sampling procedures employed, and how the data were analysed. In this chapter I also review the ethical implications of the study and consider its limitations.

The following three chapters of the thesis focus on the results of this research. In Chapter Six, I examine the first stage in participants' use of NPS: initiation. The first part of this chapter explores the context in which problem drug users had their first ever experience of NPS use, while the second part addresses in detail participants' motivations for their first ever use of NPS.

Chapter Seven discusses how and why participants continued using NPS. Here I initially describe how in practice participants persisted in using these drugs, with particular emphasis on the pattern of use they developed, the impact these new psychoactive substances had on their existing repertoire of drug use, and the route of administration adopted during the continued use of these drugs. Subsequently, I identify and discuss the reasons why problem drug users decided to continue using NPS.

In Chapter Eight I focus on participants' cessation or desistance from the use of NPS. Here I discuss separately the reasons for desistance provided by participants who: (a) stopped immediately after initiation and (b) stopped after a sustained period of use. Subsequently, I consider the factors that helped these individuals maintain their abstinence.

In Chapter Nine, the penultimate of this thesis, I aim to explain the findings as a whole and try to make sense of them in the light of existing literature. Here I introduce the reader to the

theoretical framework that was adopted to understand the findings, and then I discuss them in detail for each of the three stages of participants' use of NPS.

Finally, in Chapter Ten I advance the main conclusions of this study, along with an exploration of the possible policy and practice implications of these findings. This thesis ends with a discussion about possible directions for future research.

Having outlined background and the aims of the study and having provided an overview of the content of this thesis, I will now move on to examine what NPS are and where they come from.

CHAPTER TWO - Deconstructing NPS: Definitions, classification and supply

Introduction

‘Legal highs’, ‘designer drugs’, ‘bath salts’, ‘Spice’, ‘emerging psychoactive substances’, ‘research chemicals’, and ‘ethno-botanical plants’ are but a few of the terms used around the world with reference to a group of substances with psychoactive effects that infiltrated global drug markets since the second half of the 2000s. Authors have recently stressed that the different, and most of the time, misleading and scientifically inaccurate terms utilized to nominate these substances are likely to generate confusion (Corazza et al., 2013). Moreover, some have suggested that such inappropriate terms are successfully used as marketing tools by those who produce, transport and distribute these substances, and consequently contribute to their further diffusion into the drug markets around the globe (Van Amsterdam et al., 2013).

The various national authorities in Europe employ distinct policies and use a wide variety of data in relation to the problem of drugs. In an attempt to harmonise these different approaches, but also to generate a database with objective, reliable and comparable information, the European Union created the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Along with other responsibilities, this institution has also been tasked with the coordination of actions regarding new drugs in Europe. One of its main tools in this sense is the Early Warning System (EWS) created in order to identify emerging drugs as they appear on the European market. According to the most recent European Drug Report published in June 2017, the total number of new drugs reported through the EWS since 2006 is now more than 600 (EMCDDA and Europol, 2017). This figure is not made up of a homogeneous group of elements; on the contrary, this is a very complex and heterogeneous collection of substances.

The production, trafficking routes and distribution of traditional illicit drugs (e.g. heroin and cocaine) have been widely documented in the past and it seems that the overall level of knowledge about the supply of these substances is a reasonable one (UNODC 2010, 2013, 2015). The same statement, however, is not valid in the case of the new psychoactive substances. A general consensus exists in the literature about the scarcity of information regarding the production of these new compounds, the transportation routes used by their

suppliers and the main channels through which they are being marketed (King and Kicman, 2011).

The discussion in the first part of this chapter focuses on the different terms and definitions used thus far with reference to these new drugs, with the aim of identifying the most accurate and appropriate ones. I subsequently identify and briefly describe the different types of substances included under the vast umbrella of new psychoactive substances. In the third and last section of this chapter I cover the supply of these newly misused compounds, addressing such issues as their production, transport and distribution.

Terms and Definitions

The second half of the noughties witnessed an unprecedented phenomenon. The global drug market was infiltrated by a number of substances that all had one common feature: they were designed to circumvent existing drug legislations. Different definitions and terms have been historically associated with these particular types of compounds and the most common of these are briefly presented below, in the chronological order of their appearance. This discussion is important because there are clear indications that the terminology used to refer to these substances has influenced at least in part their rapid and significant diffusion in drug markets (Measham et al. 2010; Van Hout and Bingham, 2012).

‘Designer drugs’

According to the International Narcotics Control Board (2010:vi), ‘designer drugs’ are ‘substances that have been developed especially to avoid existing drug legislations ... [and] are manufactured by making a minor modification to the molecular structure of controlled substances, resulting in new substances with pharmaceutical effects similar to those of the controlled substances’. In almost similar fashion, EMCDDA and Europol (2012:25) define ‘designer drugs’ as ‘substances designed to mimic the effects of known drugs by altering slightly their chemical structure in order to circumvent existing controls’.

The term ‘designer drugs’ was initially employed in the 1980s with reference to various synthetic opioids, mostly fentanyl derivatives (Penders and Gestring, 2011). This concept became widespread when ecstasy (MDMA) plunged into the North American and later the European markets in the mid 1980s and early 1990s, respectively. After MDMA was put under control, other related compounds became available and were referred to as ‘designer drugs’ due to their absence from drug legislations. It did not take long before all of these MDMA-related substances were banned and therefore their description as ‘designer drugs’ was not

appropriate anymore (UNODC, 2013a). Despite this, the term continued to be utilized in some circles and is used even today by some researchers and law enforcement institutions. For instance, in countries such as Hungary and Finland, the term ‘designer drugs’ is still currently employed with reference to new drugs that appear in their markets (Dybdal Hargreaves et al. 2013; Den Hollander et al., 2012).

‘Research chemicals’

At the end of the 1990s, the term ‘designer drugs’ was replaced by a new one. The psychoactive substances that were released on the market and were not controlled under existing drug legislations were now referred to as ‘research chemicals’. It appears that this term has been advanced, and subsequently proliferated by the producers and distributors of these compounds, and it served both as a marketing tool and as an instrument aimed to circumvent the existing legal provisions regarding psychoactive substances (EMCDDA and Europol, 2012). The idea behind the use of the term ‘research chemicals’ was that the ‘intent clause’ required by the majority of drug legislations would not be met anymore if the products offered for sale were not intended for human consumption (UNODC, 2013a). The same tactic was used in the United States, where new drugs were widely marketed as ‘bath salts’.

‘Legal highs’

After the turn of the century it seems that ‘legal highs’ was the term that gained the largest popularity around Europe in general (EMCDDA, 2010), and become the preferred one in the United Kingdom and Ireland in particular (Measham et al., 2010; Sheridan et al., 2013). Corazza et al. (2013) assert that this concept was initially promoted by the media and subsequently adopted by official institutions and researchers. One possible reason why the expression ‘legal highs’ spread so rapidly and so widely over the continent could be the fact that the internet sites marketing these compounds were using English as their main language in an attempt to gain access to as many customers as possible. Therefore, because in the UK and Ireland these substances were called ‘legal highs’, other markets adopted this expression as well. Marketing motives could also be cited as potential explanations. There are many authors who claim that the use of the term ‘legal highs’ was voluntarily employed and proliferated by their sellers in order to attract more customers who would perceive these products as safer in comparison to their illegal alternatives (Favretto et al. 2012).

Corazza and her colleagues (2013) developed a consistent argument against the use of the term ‘legal highs’, describing it as a ‘colloquial’ expression which is not only inappropriate, but also ‘scientifically’ inaccurate.

Firstly, the above authors criticize the use of the word ‘legal’, claiming that this term is not accurate as the same substance can have different legal statuses in different locations around Europe. For instance, up until 2008, BZP – a mild stimulant – was being controlled in just 15 EU countries, while in the other 12 the same substance was considered a legal one (EMCDDA and Europol, 2010). Moreover, when looking at mephedrone for example, its legal status changed rapidly within the UK borders. When it appeared on the market in late 2008 it was an uncontrolled, ‘legal’ substance. However, from April 2010 mephedrone was classified as a Class B substance in the Misuse of Drugs Act 1971; therefore, from a legal stance at least, it is incorrect to refer to this substance as a ‘*legal high*’.

The same authors stressed that the word ‘legal’ had a significant importance for young persons’ perception of the harms associated with these new psychoactive substances, making them much more likely to experiment with these compounds (Corazza et al., 2010). Those who were selling new psychoactive drugs also seem to have benefited from the ‘legal’ component in their name. The lack of criminal or even disciplinary consequences against the users of these substances made them even more attractive, especially within populations which are normally subjected to periodical drug testing at their workplace or elsewhere. Johnson et al. (2013:1109) for instance report that synthetic cannabinoids have ‘particularly appealed to ... users in law enforcement, fire fighting [and United States’] Armed Forces’.

Secondly, Corazza et al. (2013) consider the use of the word ‘high’ as being scientifically incorrect because it describes only the enjoyable episode experienced by the user of a new psychoactive compound. Researchers like Dunn et al. (2010), Winstock and Ramsey (2010), Kronstrand et al. (2011) and Bruno et al. (2012) identified, reported and warned the public about the adverse consequences of abusive use of these substances.

‘New psychoactive substances’

In an attempt to replace the misleading and dangerous concept of ‘legal highs’, but also to harmonise the drug policy and reporting of data at national and regional level, the European Union introduced a new term that would be used with reference to new psychoactive compounds intended to circumvent existing drug legislations. In its Decision 2005/387/JHA, the Council of Europe proposed that these compounds would be called ‘new psychoactive

substances’, which were herein defined as: ‘a new narcotic drug (not listed in the 1961 United Nations Single Convention on Narcotic Drugs)... or a new psychotropic drug (not listed in the 1971 United Nations Convention on Psychotropic Substances)... in pure form or in a preparation, which may pose a public health threat comparable to that posed by substances listed in those conventions’ (Council of Europe, 2005:2). This definition has become widely used around the world and adopted by most important law enforcement institutions in this field. For instance, in its resolution 55/1 of 16 March 2012, the Commission on Narcotic Drugs of the United Nations also introduced the concept of ‘new psychoactive substances’, as defined by the Council of Europe in 2005.

What is important about the term ‘new psychoactive substances’ is its inclusive capacity. In the operating guidelines of the Early Warning System, the EMCDDA indicated that the word ‘new’ from this expression did not refer to newly invented, but rather ‘newly misused’ substances (EMCDDA and Europol, 2011). By explicitly making this comment, EMCDDA acknowledged that ‘most of the drugs in question were created many years ago’ but only recently their misuse became problem (EMCDDA and Europol, 2011:27). Some examples that fit this description are the plants included in the ‘new psychoactive substances’ category such as *Salvia Divinorum*, a hallucinogen originally from Mexico, and Kratom, a mild stimulant from South-East Asia, which have been available for thousands of years. A further example is that of mephedrone, which was firstly synthesized in 1929, rediscovered in 2003, and became widely misused only in the second half of 2008 (UNODC, 2013).

The international equivalent of EMCDDA – the United Nations Office for Drugs and Crime (UNODC) had also adopted the definition and interpretation of the concept of ‘new psychoactive substances’ proposed by its European counterpart (UNODC, 2013). The vast majority of researchers in this field also acknowledge that the expression ‘new psychoactive substances’ is more appropriate than ‘legal highs’, and thus advocate for the use of the former over the latter. Authors like Van Amsterdam et al. (2013), Sheridan et al. (2013), Schifano et al. (2013), Arunotayanun et al. (2013), and Zawilska and Wojcieszak (2013) have welcomed the above proposal and have already embraced it.

Alternative names for NPS around the world

Although the above terms are the ones most commonly used at European and international level, they are not the only ones employed today with reference to newly misused compounds. Mostly due to the inherent socio-cultural differences between countries, alternative terms

currently coexist with the wide-spread ones such as ‘legal highs’ and ‘new psychoactive substances’.

According to official reports from EMCDDA (2011, 2012, 2013a), but also from studies carried out by local researchers (Favretto et al., 2012; Corazza et al., 2013) in Italy the new psychoactive substances are referred to as ‘smart drugs’, probably influenced by the fact that these substances have been marketed through so-called ‘smart shops’. In Romania, on the other hand, terms such as ‘legal drugs’ or ‘ethno-botanical plants’ have been favoured (ANA, 2013), while in Poland a local word – ‘dopalacze’ meaning ‘uppers’ has been preferred (Corazza et al. 2013). Across the Channel, in France, the expression ‘new drugs of synthesis’ is utilized both in the media and the research literature (Batel, 2012; Petit et al., 2013).

Australia and New Zealand have both adopted the expression ‘emerging psychoactive substances’ (Bruno et al. 2012), a term initially associated with the so-called ‘legal party pills’ containing BZP, a piperazine derivate. It is interesting that the marketing of these new substances was even encouraged by the Government of New Zealand as they were regarded as a harm-reduction instrument with regard to methamphetamine use, which was then generating major concerns (Sheridan et al., 2013).

Kikura-Hanajiri et al. (2011) analysed the situation in Japan and reported that in the last decade the Nippon market has been penetrated by a wide range of products named ‘dappo drugs’ or ‘iho drugs’. These substances are either synthetic or herbal mixtures and are sold for ‘decorative purposes’ or as ‘herbal incense’ or ‘research chemicals’. The Japanese Government decided to name this new category of psychoactive drugs ‘designated substances’ and issued in 2006 a special piece of legislation dedicated to their control.

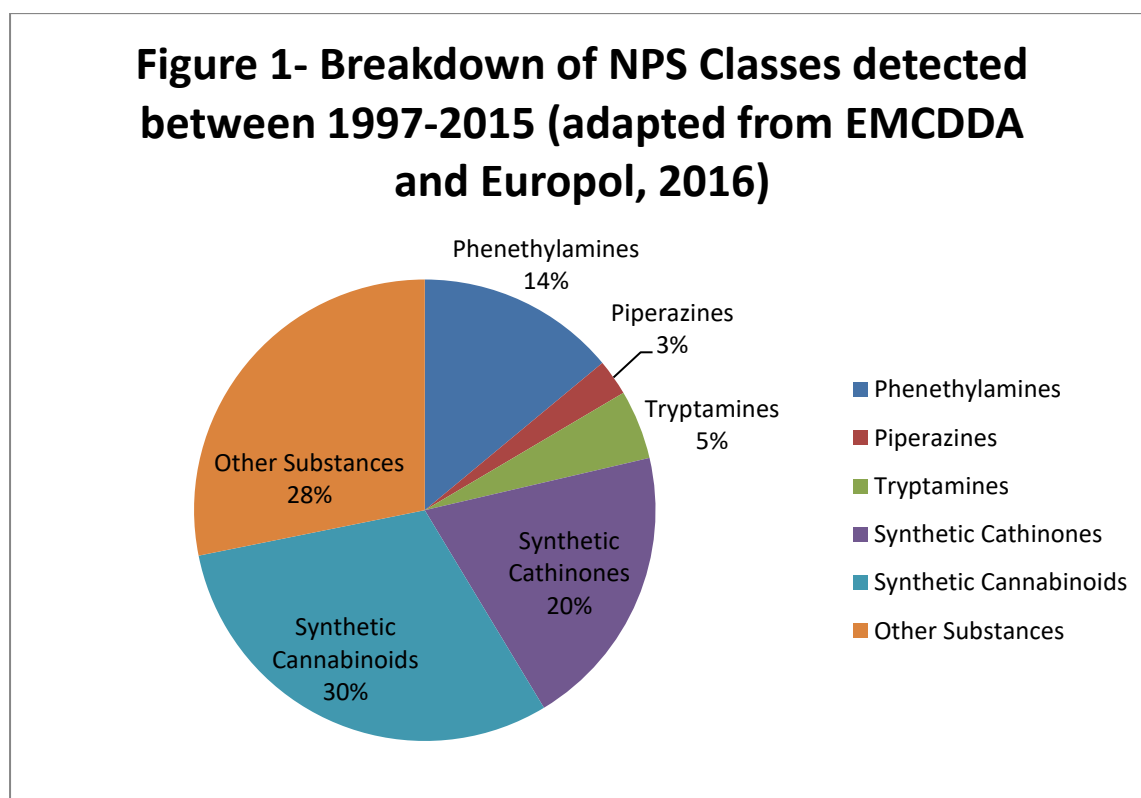
In the United States, the same group of substances came to be known mainly as ‘bath salts’ (especially the stimulants from this category), but other names such as ‘plant food’ (Den Hollander et al. 2012), and ‘herbal highs’ (Davidson, 2012) are also common. A unanimous consensus exists in the literature that despite their titles, these substances are neither legitimate bath additives, nor chemicals used for plant growth. Instead, these names along with labels such as ‘not for human consumption’ or ‘not tested for hazards or toxicity’ are being used by sellers in order to circumvent the existing health and drug legislations (Newcombe, 2009; Dargan and Wood, 2010; Dargan et al. 2011).

Having now explored the variety of terms and definitions used historically and throughout the world with reference to NPS, I turn next to presenting the different classes that make up this large group of substances.

Classes of NPS

I mentioned earlier that the NPS constitute a heterogeneous group of elements. A brief presentation of the categories that compose this vast ensemble is necessary in order to provide a clearer picture of the scale of this phenomenon and also present some of the terms and substances that are used throughout this thesis.

As shown in Figure 1 below, the main categories of NPS are: synthetic cathinones, synthetic cannabinoid receptor agonists, phenethylamines, tryptamines, and piperazines (EMCDDA and Europol, 2013). Recent statistics revealed that a sixth and fast growing category emerged within the NPS, which comprises compounds from ‘less known or obscure’ chemical groups (EMCDDA, 2013). This latter group of compounds has been conventionally named ‘Other substances’. Each of these different classes is briefly presented next.



Synthetic Cathinones

Hassan et al. (2007) describe synthetic cathinones as a group of synthetic derivatives of the vegetable cathinone, a substance naturally present in the *Catha edulis* (khat) plant native to

Ethiopia, which is cultivated in Eastern Africa and South West Arabian Peninsula (Coppola and Mondola, 2012). Cathinone itself is listed in the 1971 United Nations Convention on Psychotropic Substances under Schedule I (EMCDDA, 2007) and therefore controlled under drug legislations in a large number of countries around the world.

Cathinone derivatives generally exhibit stimulant effects which are similar to those of amphetamine-type substances (EMCDDA and Europol, 2013). This is mainly due to the fact that cathinone is a structural analogue of amphetamine (Shanks et al., 2012). Mephedrone is the most known cathinone derivative classified as a NPS. It was firstly synthesized in 1929, but rediscovered in 2003 in Israel (EMCDDA, 2009). Mephedrone spread on the stimulants market in late 2008, and it seems to be one of the few NPS that became established on the international arena of commonly abused drugs (Van Amstredam et al., 2013).

Synthetic Cannabinoid Receptor Agonists (Synthetic Cannabinoids)

The synthetic cannabinoid receptor agonists (SCRAs) are also known in the literature as 'synthetic cannabinoids'. While being available since at least 2006, these compounds are intended to mimic the effects of Tetra Hydro Cannabinol (THC), the active substance found in the cannabis plant (Favretto et al., 2012). This group of NPS is constituted more on mode of action rather than on similarity of chemical structures of its elements. Over 160 synthetic cannabinoids have been detected since 2008, making them the largest class of NPS (EMCDDA, 2016).

These substances became known to the public around the world mainly due to the herbal mixtures sold as 'Spice' – a conventional name given to all the products that contain synthetic cannabinoids, regardless of their brand name (Johnson et al., 2013). Most of these products have been sprayed on a herbal blend, and according to authors such as Sedefov et al. (2009) and Mustata et al. (2009), it is the synthetic cannabinoids that are producing the psychoactive effects rather than the plant mixture. The latest research and official papers report the emergence of 'Spice' products in resin form, especially in countries where hashish is more popular than herbal cannabis (Kikura-Hanajiri et al., 2011).

Piperazines

Piperazine derivatives are another distinct category of NPS that are produced synthetically and do not share similar chemical structures with any of the commonly misused drugs (Bossong et al., 2009). In a study from 2001, de Boer and his colleagues warned the public about the abuse potential of piperazines because of their legal status, their availability and not least because of

their stimulant psychoactive effects. These authors nominated BZP, mCPP, and TFMPP as examples of such substances.

Probably the most important piperazine of those mentioned above is BZP. This substance was first synthesized by the pharmaceutical company Burroughs Wellcome as a possible anti-depressant drug. De Boer et al. (2001) claim that BZP was sold over the internet from as early as January 2000, under the description of a ‘synthetic stimulant’. The literature supports this characterization of BZP, as it is now widely recognized as a stimulant of the central nervous system with effects which are closer to those of amphetamine, although at only 10% of the latter’s potency (EMCDDA, 2016). It seems that for this very reason BZP was not produced at commercial scale by Burroughs Wellcome. This substance was widely misused in New Zealand where it could be found under the form of tablets and sold as ‘legal party pills’ (Sheridan et al., 2013), but its presence was also reported on the European ecstasy market from 2004. Following a risk assessment by Europol and the EMCDDA in 2007, and a subsequent EU Council Decision in 2008, BZP became a controlled substance in all the Member States of the European Union.

Phenethylamines

If synthetic cathinones, synthetic cannabinoid receptor agonists and piperazine derivatives have only recently emerged on the drug markets, the next two categories of NPS are long lasting actors on the scene of illicit drugs. As mentioned earlier, phenethylamines and tryptamines represented the forefront of ‘designer drugs’ in the 1980s and 1990s respectively. However, new compounds derived from these traditional classes of illicit drugs have also been included in the vast category of NPS, which are briefly examined below.

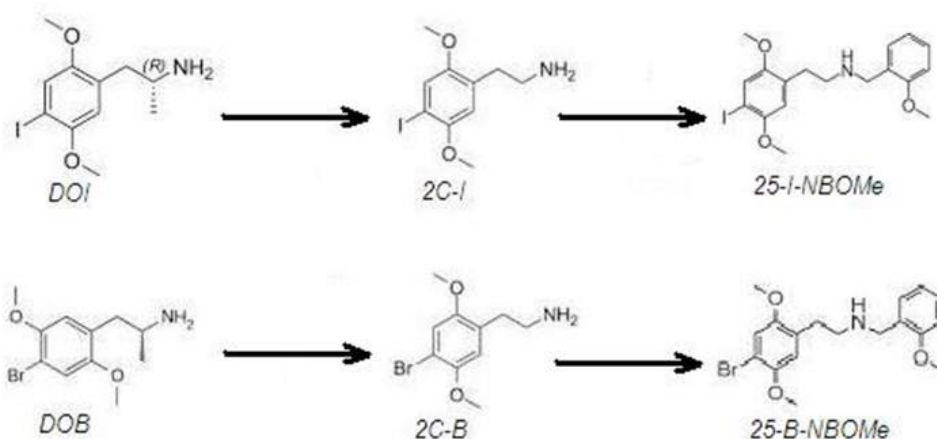
Phenethylamines as a group of substances have been present on the scene of the illicit drugs long before NPS emerged on the market. Traditional compounds from this chemical class are: the naturally occurring mescaline found in cacti such as San Pedro and Peyotl, amphetamine and its derivatives (methamphetamine and ecstasy (MDMA)) and substances from the so-called ‘D- series’: DOB, and DOI (Theobald and Maurer, 2007; De Boer and Bosman, 2004). These latter drugs have been used by the American chemists Anne and Alexander Shuglin to develop the ‘2C- series’ of designer phenethylamines during the 1970s and 1980s (e.g.: 2C-B, 2C-I).

The phenethylamines are a quite diverse class of substances in terms of the effects they produce on those who consume them. Unlike synthetic cathinones for instance, which are generally stimulants, the NPS from the phenethylamines category include not only stimulants, but also

hallucinogens and entactogens (i.e. substances which increase the empathy levels of the user) (Zuba et al., 2012).

Some of the most popular NPS from the category of phenethylamines come from the '2C' series mentioned above: 2C-E, 2C-T-2, and 2C-T-7. According to De Boer and Bosman (2004), these phenethylamines have very strong hallucinogenic effects and are most commonly sold as tablets. Other examples of available phenethylamines include the psychedelics 'Smiles' or 'N-BomEs', which are close relatives of 2C-I and 2C-B initially described by the Shulgins (Trip Project, 2013). Figure 2 below illustrates the evolution of chemical structures of phenethylamines from 'D-' series through '2C-' series to 'N-BomE' series. These latter compounds try to mimic the effects of the strong hallucinogen LSD and their marketing as paper blotters or sugar cube dosages is suggestive of this fact (DeBoer and Bosman, 2004).

Figure 2 – Transition of chemical structures from traditional 'D-' and '2C-' series to new 'N-BomE' series (EMCDDA and Europol, 2014a)



Tryptamines

As well as the phenethylamines, tryptamines have been a long-standing presence in the drug markets around the world (Kikura-Hanajiri et al., 2011). Tryptamine itself is a naturally occurring substance found in plants and fungi (Croker et al., 2012). Generally, the compounds from this class generate hallucinogenic effects and the most popular 'traditional' representatives of this group are: psilocin and psilocybin found in *Psilocybe* fungi also known as 'magic mushrooms', dimethyltryptamine (DMT) found in plants, and the semi-synthetic acid LSD (Australian Crime Commission, 2013).

Anne and Alexander Shulgin contributed to the development of mind-altering substances derived from tryptamine in the same way as they did in the case of substituted phenethylamines. Their work took the form of a book called 'TIHKAL' (Tryptamines I Have Known And Loved) (Shulgin and Shulgin, 1997) in which they described the synthesis process for more than two hundred substances derived from tryptamine, and a substance called '5-MeO-DALT' was one of them. There is evidence to suggest that this substance was being used in closed circles of psychonauts¹ from as early as 2002, but it never went on to become largely misused (Corkery et al., 2012). It seems that recently, 5-MeO-DALT re-appeared on the internet sites that sell NPS and new concerns have risen regarding its potential abuse (EMCDDA, 2013a).

Miscellaneous 'Other Substances'

As shown in Figure 1 above (p. 12), the 'Other Substances' represent almost a third (28%) of the total number of NPS currently detected at European level (EMCDDA and Europol, 2016). Included in this vast category are a few plants (e.g.: Salvia Divinorum, Kratom), several derivatives of already controlled substances (e.g. thienoamphetamine; 2-MeO-ketamine), derivatives of recently developed NPS (e.g. 5-APDB, 6-APDB, which are close derivatives of 5-APD and 6-APD respectively, that were first notified in 2011), and also a few compounds that are medicinal products or derivatives thereof (e.g. zopiclone and pyrazolam) (EMCDDA, 2013a). The fact that the 'Other substances' group is growing at such a fast rate could be a reaction from the producers of these substances, in their attempt to keep NPS out of the official drug legislation tables by creating totally new chemicals (EMCDDA and Europol, 2013).

Supply of NPS

Production

The available data about NPS production is limited and emanates almost exclusively from law enforcement institutions. It is known that in the case of semi-synthetic illicit drugs such as heroin and cocaine, the production takes place in countries or regions where opium and the coca tree, respectively, are being cultivated or easily available (UNODC, 2013). However, completely synthetic drugs such as amphetamine and its derivatives (e.g. methamphetamine, MDMA) could theoretically be produced anywhere in the world, provided that the necessary precursor chemicals and synthesis tools are available. The latter scenario should apply to NPS currently available on the market, which, with a few exceptions, are in an overwhelming

¹ According to Newcombe and Johnson (1999:18) a 'psychonaut' is 'an adult user of psychoactive drugs who agrees to participate in voluntary, confidential and anonymous research which investigates the subjective effects of drugs as they are used in normal, everyday settings'.

proportion synthetic compounds. Nevertheless, all the official reports indicate that synthetic NPS production is generally concentrated in China, and to a limited extent in India (EMCDDA, 2013a). This unusual geographic confinement merits some explanations, which unfortunately are hard to find in the literature.

According to UNODC (2013), laboratories situated in the vicinity of the main Chinese port cities are the primary source for the NPS available on the European and North American markets. Citing local informants, Campbell (2013) explains that the producers of these substances exploit a loophole in permissive Chinese legislation regarding the manufacture of pharmaceuticals and drugs, and the lack of enforcement or inspection from the authorities responsible for monitoring these activities. Another reason why China ranks first in the production of NPS is that the manufacturing process of these chemicals requires large-scale facilities that are neither economically nor legally attainable in Europe or the United States (Dargan and Woods, 2013). However, there are some recent indications about a possible replacement of China at the top of the NPS producing countries. Penna (2013) warns about the potential future involvement of Western, Northern and Eastern African countries in this process, due to their recently improved transport links with Europe and the United States, new local market opportunities and cheaper labour costs.

The production process of NPS is not limited to the synthesis of new chemicals. It also involves the professional mixing of these substances and also their packaging, in order to be further distributed to consumers. If the initial stage, as seen above, normally takes place in clandestine laboratories in Asia (Van Amsterdam et al., 2013), the next two steps are being carried out in consumer countries or in their close vicinity, after the synthesized chemicals have arrived there. Official reports indicate that a number of production-related facilities specialized in mixing and packaging of NPS have been dismantled around Europe in recent years, with such sites discovered in Belgium, Ireland, Poland, the Czech Republic and The Netherlands (EMCDDA, 2016).

Transport

In terms of the routes utilized by the distributors to deliver NPS to Europe or elsewhere, the discussion is much simpler than in the case of traditional illicit drugs. Because most of these chemicals are non-controlled substances, they can be shipped anywhere in the world using normal, conventional shipping methods (i.e. post services or couriers). Due to the fact that most of the time this process is a legal one, it could be argued that the use of the term ‘trafficking

routes' with reference to the NPS is inappropriate. Instead, the expression 'transport routes' appears to be more suitable in this case.

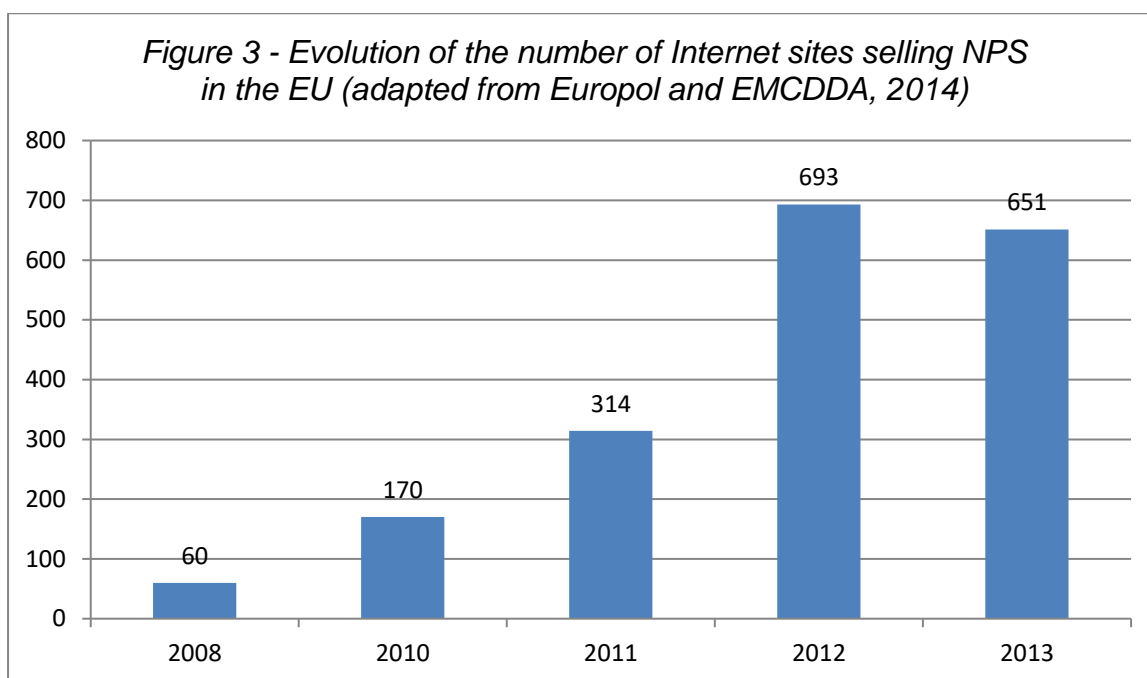
Things get a bit complicated if the NPS is controlled in the destination country. Europol have established that in this situation the distributors would use an intermediary EU country where the new compound is not controlled, from where it would be easily transported to its final destination (EMCDDA and Europol, 2013). The same tactic was adopted in the USA, as distributors take advantage of the inherent gaps in legal arrangements which require each state to issue its own specific drugs legislation in order to control a certain substance (Coppola and Mondola, 2012).

Distribution

The final stage in the supply process of NPS is their distribution on the market. Authors who covered this subject acknowledge that while NPS were initially being sold in 'traditional shop-fronts' (Bruno et al., 2012), these compounds are increasingly distributed globally via the internet (Baumann et al., 2013) and more recently, via street drug-dealers.

Shops specialized in the commercialization of NPS were more common in Europe, where they have been named in various ways. In Britain and Ireland, these stores were called 'Head Shops' or 'Spice Shops' (Measham et al., 2010). Similar stores were named 'Smart Shops' in Italy, or 'Ethno-Botanical Shops' in Romania (A.N.A., 2013). EMCDDA (2009) also reported the availability of such products in sex-shops in Lithuania and at fuel stations in Luxembourg. On the other side of the Atlantic, in the US, NPS could be easily purchased from petrol stations or convenience stores (Den Hollander et al., 2012; Davidson, 2012), while in Japan the same type of products were normally sold in video stores (Kikura-Hanajiri et al., 2011).

Despite the existence of the above points of sale, a clear consensus exists in the literature regarding the extremely important role of the Internet in the distribution of NPS. Both academics and official institutions acknowledge that the use of virtual shops for the commercialization of NPS is the main contributing factor for the unprecedented upsurge of these compounds (Davidson and Ramsey, 2012; Vardakou et al., 2010). In view of the above, the EMCDDA started to monitor the European internet sites offering NPS for sale through periodic web 'snapshots'. As shown in Figure 3 below, these screenings revealed a constant increase in the number of such virtual shops in the EU Member States until 2012, when a plateau seems to have been reached.



In the distribution process, NPS benefit from a very important tool that traditional illicit substances do not have access to: overt marketing. This is obviously possible due to the legal status of most of these compounds. Often the advertising of NPS has been described as ‘aggressive’, with the Internet playing a decisive role in this process (Hughes and Winstock, 2011). Another feature of the advertising of NPS is the fact that in most of the cases distributors are misleading purchasers in terms of the exact ingredients of their products. It has often been found that various NPS have been falsely offered for sale as mephedrone or other more well-known compounds (Csak et al., 2013; WEDINOS, 2015). Concurrently, when the NPS firstly appeared they were marketed as illegal drugs. This is especially applicable to piperazines (i.e. BZP and mCPP), which during 2008-2009 were sold as amphetamine or amphetamine-type derivates (e.g. MDMA, methamphetamine). Recent studies indicate a wide availability of NPS on the dark-web on the so-called ‘cryptomarkets’ (Aldridge and Decary-Hetu, 2016), but it seems that demand for these substances on such platforms is limited (Barratt et al., 2014, Caudevilla, 2014; Caudevilla et al., 2016). In addition to web-marketing, NPS have also started to be promoted through active ‘recruitment methods’ such as ‘new media’, blogs and SMS (Van Amsterdam et al., 2013).

Despite the general view that the Internet and high-street head shops are the main arenas in which NPS are marketed and sold, research suggests that in fact, consumers obtain NPS mainly through street-dealers and friends (Sande, 2016; Newcombe, 2009; Soussan and Kjellgren, 2016). It has been suggested that in the case of recreational users, fear of being identified through the credit card details and the stigma attached to being seen entering a shop that sells

drugs are reasons why consumers prefer to purchase NPS through the traditional channels of drug distribution (McElrath and van Hout, 2011). In the case of long-term, problem drug users, these reasons tend to be different. This population has generally been associated with homelessness, increased debt, lack of Internet access and/or IT skills, problems which clearly limit these users' access to buying NPS through online transactions.

A final observation needs to be made regarding the individuals who are responsible for the supply of NPS. International drug trafficking and local distribution of illicit drugs has historically been associated with organised crime. However, the involvement of criminal organisations in the production, transport and distribution of NPS has been questioned both by researchers and law enforcement institutions. It appears that the individuals responsible for the supply of NPS, particularly those involved at production and transport levels, are 'opportunistic entrepreneurs' rather than members of criminal organisations (EMCDDA, 2013). As far as the distribution level is concerned, things get a bit blurry. Head shops and internet-site owners who are selling NPS that are legal also tend to be 'opportunistic entrepreneurs'. Nevertheless, Soussan and Kjellgren (2016:83) argue that 'a gradual overlapping between the traditional and novel markets is taking place', especially when an NPS is banned and becomes illegal. If this happens, the NPS would only be available via street-dealers or cryptomarkets, both associated with criminal organisations.

Conclusion

This chapter initially introduced the reader to the different terms and definitions used historically for substances designed to circumvent existing drug legislations. Following this discussion, it was established that the term 'new psychoactive substances', which was introduced and defined by the European Commission, is currently the most appropriate and accurate, and important efforts are being made to promote it as a preferable alternative to the widely used and criticised term 'legal highs'. According to many voices in the academic field, this latter expression is not only scientifically inaccurate, but it seems that in some cases it also creates a false sense of safety, which in turn encourages the misuse of these drugs especially among vulnerable populations such as teenagers and young adults.

The heterogeneous nature of the new psychoactive substances as a collection of chemical compounds was then addressed. In this section, the different classes of NPS were briefly identified and described, mainly with the aim to familiarise the reader with the variety of chemical substances that will become the focus of discussion later in the thesis.

The third and last section of this chapter covered the supply of NPS. It appears that the production of these substances takes place mainly in China and, to a limited extent in India, but there are signals that a few African countries might take over the Asian ones because of the improving infrastructure and lower labour costs in the former. The transport of NPS from the producing to consumer countries takes place largely through conventional transportation means, due to the legal status of these substances in the vast majority of countries around the globe. As far as distribution is concerned, NPS reach their customers through three major channels: the internet, the specialised head-shops and street-dealers. While initially it was thought that the internet and the head-shops played a central part in the rapid spread of these substances, recent research indicates that most NPS users buy these drugs from street-dealers and friends.

The following chapter moves the discussion closer to the focus of this thesis. More specifically, it helps the reader understand the context of the current research by analysing in detail the origin, history and emergence of NPS, with particular emphasis on the two relevant substances for this study: mephedrone and synthetic cannabinoids. Additionally, details are provided about the prevalence of use of these drugs both in the general UK population and more specific groups of individuals from the UK and elsewhere around the world.

CHAPTER THREE - NPS: Origin, geographical spread, emergence and prevalence of use

Introduction

The issue of new psychoactive substances was perceived as being of limited significance to drug policy makers until a few years ago. However, the recent ‘phenomenal’ changes in the market of these substances prompted a re-evaluation of the European and international priorities in this area, and now the problem of NPS is widely accepted as one of ‘serious concern’ (EMCDDA and Europol, 2014:5). How exactly this radical shift in perspective happened is still a matter of debate, but in this chapter I endeavour to try to shed some light on this issue.

Initially, the origins and history of NPS are discussed, and this is followed by a snapshot of these substances’ geographical spread into current drug markets around the world. Subsequently, possible explanations both for the emergence and rapid diffusion of NPS in these markets are discussed. The second part of the chapter consists of an analysis of the current evidence regarding the prevalence of NPS use in the general UK population and among more specific groups, including problem drug users, both from the UK and elsewhere in Europe, the United States and Australia.

Origin of NPS

NPS started to make their way into drug markets around the globe sometime in the second half of the 2000s. However, this does not mean that all the substances currently classed as NPS are recently-created chemical compounds (Coppola and Mondola, 2012; Davidson and Ramsey, 2012; Corkery et al., 2012; Seely et al., 2012). Indeed, EMCDDA (2012) and the International Narcotics Control Board (2013) explicitly warn that the word ‘new’ from the phrase ‘New Psychoactive Substances’ should be understood as ‘newly misused’ rather than ‘newly discovered’ substances. In order to clarify which NPS have only recently been synthesized and which ones were already available for some time, a brief overview of the origin and history of some of the most popular NPS is provided below.

Firstly, under the umbrella of NPS are included a few plants, such as *Salvia Divinorum*, Khat and Kratom. Obviously, these are anything but ‘newly discovered’ substances since they have

been available to humans for thousands of years. What qualifies them as ‘new psychoactive substances’ is the fact that they have recently begun to be misused on a more significant scale.

Secondly, some of the substances classed today as NPS were initially developed in the past as medicines. Examples include: AMT (alpha-MethylTryptamine) – produced in the 1960s and used as an anti-depressant (EMCDDA, 2013), and the ‘JWH’ series of synthetic cannabinoids synthesized in the 1990s by Dr. John William Huffman and his colleagues with the intention to use them in therapy. The production of the above compounds was, in most of the cases, ceased when their psychotropic effects and the potential for abuse became apparent, when they did not work as expected, or when they were proved not commercially viable (Johnson et al., 2013).

Thirdly, other NPS were also synthesized in the past, but not with the intention to be used as medicines. The synthesis of these compounds is generally the fruit of the work of chemists like Ann and Alexander Shulgin. In their books ‘PIHKAL - Phenethylamines I Have Known and Loved’ (Shulgin and Shulgin, 1991) and ‘TIHKAL - Tryptamines I Have Known and Loved’ (Shulgin and Shulgin, 1997), these American chemists described the synthesis process of a few hundreds phenethylamine and tryptamine derivatives, all of which supposedly had mind-altering properties. Compounds from the ‘2C –’ series (i.e. 2C-I, 2C-T), as well as the recent ‘5-MeO-’ series are only a few examples of NPS that have been described more than twenty years ago, but which have only recently been identified on the market.

Lastly, the remaining NPS are totally newly discovered chemical compounds which have been synthesized recently with the only intended purpose to be distributed as mind-altering substances. Examples of such substances are methoxetamine (a ketamine derivative) and ethylphenidate, which were first detected in 2010 and 2011 respectively.

A selection of some of the most popular NPS with details about their origins, intended purpose for use and when and where they were first identified in Europe through the European Warning System since 1997 is provided in Table 1 below.

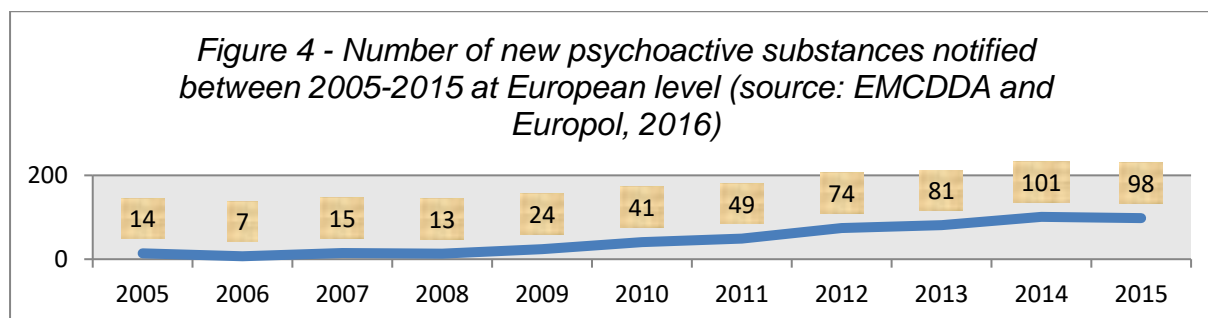
Table 1 – Origins of popular New Psychoactive Substances

Substance	Type of substance	Date of first synthesis (approx.)	Synthesized by	Intended use at first synthesis	Date of notification as NPS	Notifying country
AMT	Tryptamine	1960s	USSR	Anti-depressant	2001	Finland
2-DPMP	Other	1950s	N/A	Treatment against narcolepsy and ADHD	2009	Finland
JWH – 018	Synthetic cannabinoid	1995	John William Huffman	Used in therapy	December 2008	Germany and Austria
HU-210	Synthetic cannabinoid	1960s	Hebrew University - Israel	Treatment of nausea following chemotherapy	June 2009	UK
Mephedrone	Cathinone derivate	1929	Saem de Buranga Sanchez	Anti-depressant	2008	Finland
2C-B	Phenethylamine	1974	Ann and Alexander Shulgin	N/A	1994	The Netherlands
5-MeO-DALT	Tryptamine	1980s	Ann and Alexander Shulgin	N/A	March 2007	Finland
Methoxetamine	Other (Ketamine derivate)	Around 2011	Unknown	N/A	November 2010	UK
Ethylphenidate	Other (stimulant)	1961	Unknown	Psychotherapy	November 2011	UK

Geographical spread of NPS

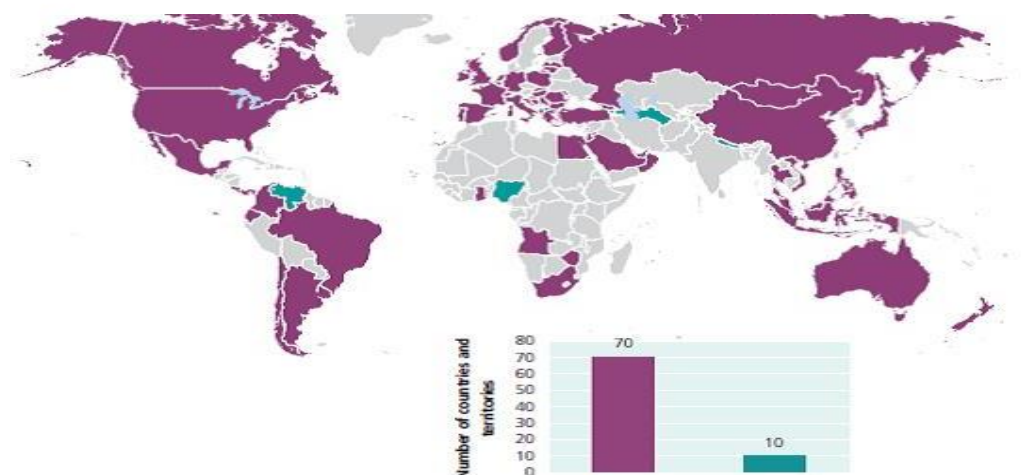
Mind-altering substances intended to avoid existing drug legislations have been appearing ever since the first international drug laws had been drafted (UNODC, 2013). However, as Davidson (2012) rightly observes, before the end of the last century any addition to the list of controlled drugs was regarded as something of exceptional nature. Shapiro (2016:6) also stresses that ‘there was a time when months if not years would go by between the arrival of new drugs on

the scene, with a profile sufficient for governments to invoke drug controls’. Even in the first half of the 2000s, only a handful of new psychoactive substances were reported each year at global level. For instance, between 1997 and 2004, just over 30 new psychoactive substances were notified in Europe (EMCDDA, 2007). However, between 2005 and 2015, this figure rose to more than 560 (EMCDDA, 2016). For a breakdown of the number of new psychoactive substances identified in Europe each year between 2005 and 2015, please see Figure 4 below.



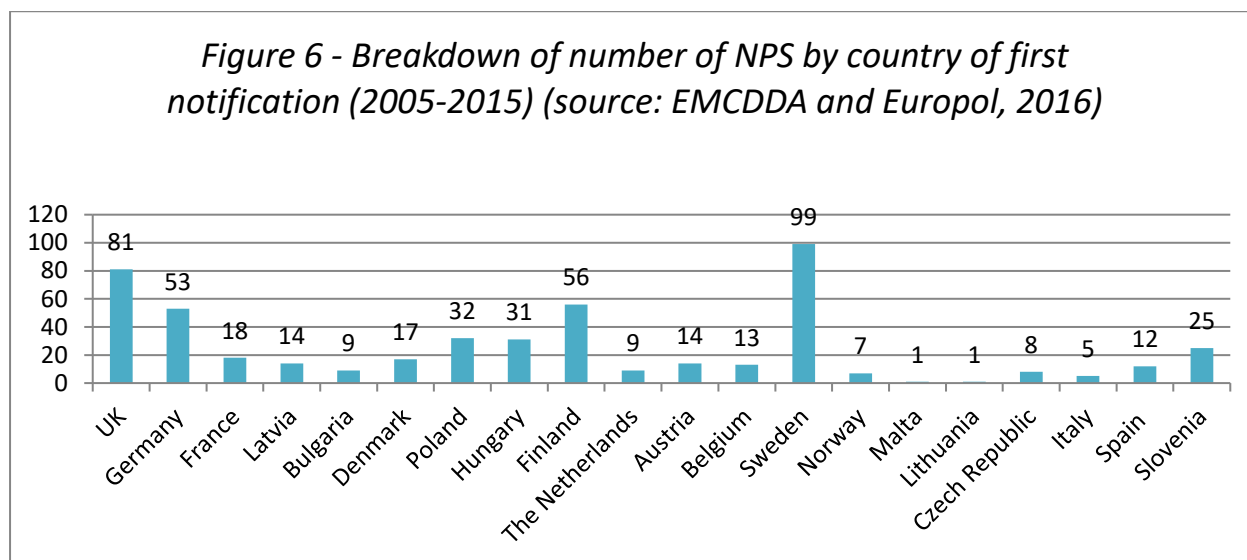
A survey performed by the UNODC at global level a few years ago (2013a) revealed that from 80 participating countries, almost 90% (n=70) reported the presence of NPS in their territories (please see Figure 5 below). More recently, UNODC reported that as of December 2014, 95 of its member states had recorded the presence of NPS on their territories (UNODC, 2015). This means that if cannabis is excluded, the geographical spread of NPS ‘comes close to, or even exceeds, the spread of several controlled drugs’ (UNODC, 2013:67).

Figure 5 – The geographical spread of NPS (source: UNODC (2013:68))



As clearly shown in Figure 6 below, the United Kingdom has been one of the most active countries in Europe in terms of the number of new psychoactive substances first notified within its borders. This may suggest that the British market is very appealing to the distributors of

these drugs. Alternatively, it could be that the specialized forensic laboratories in the UK are equipped with more advanced identification technologies, compared with other EU member states. As with many other aspects related to NPS, it is yet to be established which of the two explanations is valid, or whether others are possible. Nevertheless, the fact that a very important number of these new compounds appear in the UK very soon after they have been synthesized is beyond any doubt.



The wide geographical spread of NPS that happened in a relatively short period of time has been mainly attributed to three factors.

Firstly, there is a general consensus about the major role played by the Internet in this development (Winstock and Ramsey, 2010; Bruno et al., 2012; Van Hout and Bingham, 2012). More specifically, authors attribute the spread of NPS to a significant extent to the use of the World Wide Web for their marketing and distribution. Recent research indicates that NPS are now being sold on ‘cryptomarkets’ as well (Aldridge and Decary-Hetu, 2014; Barratt et al., 2014; May and Bhardwa, 2016). These are internet-based platforms similar to the defunct ‘Silk Road’, where sellers and buyers of these substances retain their anonymity and therefore benefit from an extra layer of protection from law enforcement. Apart from being used as a marketing tool, the Internet also serves as an information-sharing platform for all those interested in experimenting with the latest mind-altering drugs. It is argued that with the assistance of the internet, trends and ‘fashions’ of drug use are today much more easily transmitted and shared around the world and this also played a role in the rapid diffusion of NPS (Boyer et al., 2001; Corazza et al., 2011; Fattore and Fratta, 2011; Vardakou et al., 2010).

Secondly, closely related to the use of the internet is the globalization phenomenon. This provided the producers and distributors of NPS with easy access to various means of cheap and reliable transportation, and to an infrastructure of highly developed transnational commercial links between different legitimate markets around the world (Winstock and Ramsey, 2010; EMCDDA, 2013). These, coupled with wide internet access, new payment systems, low labour costs and the increasing global influence of Chinese chemical and pharmaceutical industries – where NPS are mainly produced, could also explain why the new psychoactive substances became so widely spread around the globe (Levinson, 2006; Smil, 2010; Morris, 2011; Stearns, 2011; Halford, 2015).

Finally, the legal status of the NPS has also contributed to their fast and wide geographical diffusion. The lack of criminal sanctions associated with the production and distribution of NPS attracted numerous entrepreneurs willing to capitalize on the existing gap in drug legislations (EMCDDA and Europol, 2012). Moreover, because these substances were legal, they could be transported and distributed anywhere around the world through legitimate channels, like any other licit commercial product. There are also a few researchers and practitioners who claim that the legal response of the governments with regard to the NPS, which was mainly in the form of prohibition, did not fulfil its aim of reducing their availability (Crew, 2016; Fattore and Fratta, 2011). Ironically, the criminalisation of NPS led instead to ‘an increase in their range, potency, profile and availability’ (Winstock and Ramsey, 2010:1685), because producers continually sought to avoid drug legislation by creating new molecules and subsequently released them on the market.

In the following sections of this chapter I take a closer look at the emergence and subsequent diffusion of NPS into drug markets around the world.

Emergence of NPS

Shapiro (2016) argues that the emergence of NPS could be tracked back to the introduction and extensive enforcement of the 1988 UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. This document allowed law enforcement agencies around the world to tackle drug production at its roots, by limiting criminal organisations’ access to precursor chemicals needed to synthesize illegal drugs. It seems that the greatest success of these actions was obtained in the 1990s with regard to precursors of MDMA, or ecstasy (UNODC, 2010; Brunt et al., 2012; Sarosi, 2012), which meant that MDMA became much more difficult to synthesize and consequently less available on drug markets around the world. It is against this backdrop that the so-called ‘herbal-highs’ made their way onto the scene of mind-altering

substances. These were promoted as a more ‘natural’ way of ‘getting high’ and this category of drugs included psychoactive plants such as *Salvia Divinorum* and ‘Morning glory’, as well as more indeterminate compounds marketed as ‘herbal ecstasy’ (Shapiro, 2016).

Another development which was cited as having contributed to the emergence of the NPS market was the successful marketing of the mild stimulant BZP (Benzylpiperazine) from a base in New Zealand. In the 1990s, a concerted effort by Australia and Thailand’s law enforcement authorities led to the eradication of the opium poppy fields in the latter country (Degenhardt et al., 2005, 2006). The consequential heroin drought in Australia and New Zealand resulted in the appearance and diffusion of methamphetamine in these countries (Dietze et al., 2002; Topp et al., 2003; Weatherburn et al., 2003). At that time, the distributors of BZP and even the governments in Australia and New Zealand promoted this new drug as a safer alternative to the much more damaging methamphetamine (Sheridan et al., 2013). However, mainly due to its reduced potency in comparison to MDMA, BZP did not enjoy a similar success on the European market (Shapiro, 2016). However, it did achieve two important things: it opened the drug users’ appetite for new drugs, and more importantly, it showed prospective entrepreneurs the potential for a very lucrative business.

Authors like Khullar et al. (2014), Bretteville et al. (2013) and Wagner et al. (2014) rightly observe that from the large group of NPS, the two classes that gained the greatest popularity were the synthetic cathinones (mephedrone in particular) and the synthetic cannabinoids. Because these drugs are the most relevant for this research as well, below I try to provide a clearer picture of how they emerged and gained popularity.

The rise of mephedrone

Initially synthesized in 1929 in Israel as a plant fertilizer, mephedrone re-appeared in the same country in 2004 as a recreational drug with stimulant effects (Power, 2009), and discussions about this substance on internet forums have been identified since 2007. However, many authors acknowledge that the moment when mephedrone became widely popular in Europe and elsewhere was in 2008-2009, which coincided with a reduction in the availability and purity of similar ‘party drugs’ such as ecstasy, MDMA powder, and cocaine (Van Hout and Bingham, 2012; Measham et al., 2010; Johnson et al., 2013; Winstock et al., 2011; Davidson, 2012). These observations are confirmed by other sources as well. O’Neill (2009), for instance, cites a report issued by the UK Serious Organised Crime Agency (SOCA), which indicates that in 2009 the lowest ever purity level of street cocaine in the UK was recorded. Concurrently, Brunt et al. (2012) analysed the ecstasy market in the Netherlands, the major global source of

this drug. These authors reported that while between 1998-2008, 80-95% of the tablets sold as ecstasy contained MDMA-like substances, this percentage fell to only 40% during 2008. Official reports released by EMCDDA and Europol (2011), UNODC (2010) and national law enforcement agencies (Reitox National Focal Point Ireland, 2012; Hungarian National Focal Point, 2013) confirmed that the steady decline in the availability of established stimulants was apparent in other European countries as well. Under these circumstances, the existing population of stimulant users became interested in mephedrone, which was readily available and produced effects similar to cocaine and ecstasy (Measham et al., 2010).

Authors who studied the rise of mephedrone acknowledged that it became very quickly a popular drug especially amongst young adults, and the main driver for its popularity was the aforementioned limited availability and poor quality of ecstasy and cocaine (Measham et al., 2010; McElrath and Van Hout, 2011). Moreover, it has been argued that the competitive pricing of mephedrone compared to the other traditional illicit drugs available on the market at the time was also a contributing factor to its success. The legal status of mephedrone meant that it was easily obtainable and there were no criminal consequences for those who were using and even distributing this substance (McElrath and Van Hout, 2011). A final factor often cited as contributing to the public's preference for mephedrone when it first appeared on the market was its consistent superior quality which ensured reliable effects for its users (O'Neill, 2014; Freeman et al., 2012, Winstock et al., 2011).

The rise of synthetic cannabinoids

The other category of NPS that has thrived in recent years is the synthetic cannabinoids, also known as 'Spice'. Official statistics and research studies alike agree that when the first synthetic cannabis receptor agonist – JWH-018 – was discovered in 'Spice' products in Germany in 2008, the cannabis market was not experiencing the sort of shortage evident in the case of stimulants, and which constituted the backdrop against which mephedrone gained its popularity (Johnson et al., 2013; Sedefov et al., 2009).

Researchers who looked at the 'Spice' phenomenon argued that the extremely rapid synthesis of synthetic cannabinoids in comparison with the lengthy production process of herbal cannabis could explain why the former attracted the attention of various entrepreneurs and enabled their diffusion on the mind-altering substances markets around the world (Griffiths et al., 2010; Fattore and Fratta, 2011).

Moreover, the higher potency of the synthetic products over the natural cannabis could also have constituted an important factor for the release of the former on the market and their subsequent popularity (Aung et al., 2000; Huffman and Padgett, 2005; Griffiths et al., 2010).

As in the case of mephedrone, the price of synthetic cannabinoids also contributed to these substances' success, and their reduced cost in comparison to herbal cannabis meant they were affordable to a wider variety of prospective users (Sedefov et al., 2009).

The legal status of the synthetic cannabinoids is another factor often associated with the popularity of these substances. It has been argued that the lack of criminal consequences related to 'Spice' use and distribution made these products a popular choice both within the general population, and more prominently within the prison population (Crew, 2016). The legal status of 'Spice' products also infused a sense of safety, which attracted a population of users who normally would have been more cautious before experimenting with mind-altering substances (Winstock and Ramsey, 2010).

Finally, synthetic cannabinoids became popular because of the inability of routine toxicology tests to detect these substances in urine and/or blood samples. This feature of the 'Spice' products made them appealing to a wider segment from the general population, which included military personnel, prisoners and drug treatment attendees, for whom drug testing was a common occurrence (Leoffler et al., 2012; Spaderna et al., 2013; Vandrey et al., 2012).

In the following sections, the discussion moves on to focus on the prevalence of NPS use in general and specific populations, while also outlining some of the problems associated with attempts to measure it.

Prevalence of NPS use

There are numerous voices that have stressed that having an accurate picture about the prevalence of NPS use would be an important step towards better understanding the real extent of this phenomenon (Measham et al. 2011; Soussan and Kjellgren, 2016). Traditionally, the drug misuse literature has tried to establish the prevalence of use of a certain substance by measuring it either in the general population (mainly through large-scale, quantitative surveys), or in more specific populations, believed to be more likely to use that drug (through smaller scale quantitative and qualitative research).

Prevalence of NPS use in UK's general population

Bruno and his colleagues (2012) explained that the scarcity of large-scale, general population surveys that measure the prevalence of NPS is due to the fact that prior to 2006 the level of use of these substances was insignificant. This consequently led authorities to perceive the NPS phenomenon as lacking importance and therefore not justifying the efforts to measure its extent. Moreover, as Van Amsterdam et al. (2013) rightly observe, approximately 98% of NPS disappear from the market soon after they have been released and this makes it really difficult, and for some meaningless, to try to determine the level of use of individual NPS in general populations. Exceptions to this rule are of course those products that do become established on the market for a longer period of time, such as mephedrone and synthetic cannabinoids (Khullar et al, 2014, Patrick et al., 2016). Overall, only a few surveys measure NPS and those that do this focus on: 1) NPS as a whole group of substances; 2) mephedrone, and/or 3) synthetic cannabinoids – also known as ‘Spice’ products (Leoffler et al., 2012).

At UK level, since 2014/2015, the Crime Survey for England and Wales (CSEW) has collected data regarding the use of NPS as a group of substances within the general population. This category does not include other NPS such as mephedrone, khat, ketamine, salvia divinorum, and synthetic cannabinoids, which are measured separately. According to the most recent data available, 2.7% of the all adults aged 16 to 59 in England and Wales had used NPS (excluding the substances listed above) at least once in their lifetime, while for young adults aged 16 to 24 this figure was 6%. The prevalence for last year use of the same drugs was 0.7% among all adults aged 16 to 59, while for young adults aged 16 to 24 this figure was 2.6% (Office for National Statistics, 2016).

As stated above, the prevalence of use of individual NPS has also been measured using general population surveys. The CSEW provides estimates of the prevalence of mephedrone use in the general population in England and Wales since 2010/2011. According to the latest survey (2016/2017), mephedrone was used by 0.1% of all adults aged 16 to 59 during the last twelve months, down from 0.3% in the previous year (Home Office, 2017). The level of synthetic cannabinoids use started to be measured in the 2010/11 survey, when the last year prevalence for Spice products among all adults was 0.2%, while among those aged 15–24 it was 0.4% (Smith and Flatley, 2011). According to the data from 2015/16, 0.36% of all adults aged 16 to 59 used synthetic cannabinoids during the previous twelve months, similar to the figure from the 2014/15 survey (Office for National Statistics, 2016).

Nevertheless, the figures presented above have to be treated with caution. Limitations historically associated with the old British Crime Survey figures have been long documented in the past (see for instance Bryman, 2008), and these have now transferred to the new CSEW. These surveys' inability to provide an accurate picture of drug use prevalence has been generally attributed to: a) their sampling procedures, which often fail to include the individuals who are most likely to have higher levels of substance misuse, such as homeless people, prisoners and other institutionalised persons; and b) problems with the accuracy and reliability of answers provided by respondents (Maguire, 2012).

Prevalence of NPS use in specific populations

A brief analysis of smaller-scale quantitative studies among more specific populations such as pupils, students, club goers, recreational drug users and gay men is useful to see if there are any differences between NPS prevalence levels reported by these groups and the general population surveys. A few such examples are briefly presented below.

Dargan and his colleagues (2010) conducted a study that surveyed 1,006 Scottish individuals enrolled in schools, colleges and universities and found that around 23% of their 16 to 18 years old participants used mephedrone at least once in their lifetime. In contrast, The Monitoring the Future 2012 survey in the United States, which provides data regarding prevalence of mephedrone use and related products (known as 'bath salts') among American high-school students, estimated that only 1.3% of high-school seniors (aged between 17 and 18 years old) used these drugs at least once in the last year (NIDA, 2012).

The Mixmag and Guardian Drugs Survey was one of the first surveys to signal the rise of mephedrone within British clubbers. The 2010 report revealed that in the previous year, from the total of approximately 2000 respondents, 42% had used mephedrone at least once in their lifetime (Winstock et al., 2010). Except for a small rise in 2010 when the prevalence levels reached 53%, these figures declined constantly and sharply in the following years (19% in 2011; 13% in 2012).

A study from Australia, conducted by Lea et al. (2011), found that 4% of their respondents to an online survey among same-sex-attracted men and women, used mephedrone at least once in their lifetime. In contrast, Measham et al. (2011) conducted a survey in a similar population consisting of customers from two gay-friendly night clubs in London and found that 54% of their participants reported having used mephedrone at least once in their lifetime.

As far as synthetic cannabinoids are concerned, most research that provides evidence regarding the prevalence of use of these substances within specific populations comes from studies among school-aged youth, criminal justice system involved individuals, and internet users (Wagner et al., 2014). One such study, which was conducted in England in 2009, is a cross-sectional anonymous online survey that was posted on the Mixmag magazine website, targeting the population of British clubbers. From a total of 2,295 respondents, 12.6% reported having used synthetic cannabinoids at least once in their lifetime (Winstock et al., 2010).

Werse et al. (2011) conducted a study in Germany, consisting of questionnaires with pupils aged 15–18 and found a lifetime prevalence of 9% for the use of synthetic cannabinoids. A study from the United States explored the use of synthetic cannabinoids among a similar cohort of college students in Florida and found that the use of synthetic cannabinoids was reported by 8% of the sample population (Hu et al., 2011).

The above studies show that the prevalence of mephedrone and synthetic cannabinoids use among more specific populations tends to be higher than what the general population surveys show. Another aspect revealed by these studies was that prevalence levels tend to vary between the populations surveyed, but also within samples belonging to the same type of individuals, thus leaving the reader with an unclear image of this topic.

Prevalence of NPS use among problem drug users

NPS tend to mimic the effects of drugs that are normally related to a recreational type of use (Bruno et al., 2012), a trend that was apparent since the first such substances emerged on the market. Synthetic cannabinoids, and then BZP and mCPP, from the first wave of NPS, imitate the effects of cannabis and amphetamine-type stimulants respectively, which are mainly regarded and used as recreational drugs (Measham et al., 1994). A natural consequence of this association between NPS and a recreational type of use meant that the vast majority of studies concerned with this phenomenon have overlooked the use of these substances by the hidden population of problem drug users. However, there were a number of reports which suggested that especially stimulant-type NPS such as mephedrone, MDPV and other cathinones had infiltrated the repertoires of heavy-end drug users in a more noteworthy extent.

There are two ways in which prevalence of NPS use among problem drug users has surfaced in the literature. Firstly, there are studies that identified the use of NPS among samples of problem users of traditional drugs (e.g. heroin, amphetamine and/or crack cocaine) and

secondly, there are studies of NPS users among which some are also problem users of traditional drugs. Examples of each of these are presented below.

In Hungary, the intravenous use of both amphetamine-type stimulants and heroin is popular among problem drug users (Csak et al., 2013). Research conducted at different needle exchange programmes in Budapest found that NPS such as mephedrone, and subsequently MDPV and methylone had infiltrated the repertoires of Hungarian injecting drug users to a significant extent. More specifically, almost half (45.1%) of the former amphetamine injectors and almost the same amount of heroin injectors (41.7%) had switched to MDPV and/or mephedrone (Csak et al., 2013).

In the United States, Wagner et al. (2014) conducted an online survey with current injecting drug users and found that 7% of their respondents used synthetic cathinones, including mephedrone, at least once in their lifetime. The same study reported that 30% of participants used synthetic cannabinoids, with 5% of them having used both synthetic cathinones and synthetic cannabinoids. Similarly, Vandrey et al. (2012) reported that within their sample of synthetic cannabinoids users, 7% were regular heroin users.

In addition to the above studies that highlighted the use of NPS among problem drug users, others have identified problem use of traditional drugs among NPS users. One of the first of these studies was that of Van Hout and Bingham (2012). These authors interviewed twelve problem mephedrone injectors in Dublin, all of whom were previous heavy-end heroin users. The study aimed to describe these individuals' experiences of using mephedrone, with particular focus on effects of mephedrone, locations and contexts of use, types of use and drug combinations involving mephedrone, risk perceptions and harm reduction practices (Van Hout and Bingham, 2012:188).

In a more recent study in Hungary, Kapitany-Fevony et al. (2015) reported that from the entire sample of 145 mephedrone users, 37.5 % were also problem injectors of heroin. In a study from New Zealand, MacFarlane and Christie (2015) also found that from their sample of problem synthetic cannabinoids users, 11% had received simultaneous opiate treatment for heroin addiction.

Having now seen what data is available regarding the prevalence of NPS use among problem drug users elsewhere, I next turn briefly to what is known about this topic in Wales, the location of the current study. Anecdotal reports from various charities across South Wales revealed that in 2012-2013 a large proportion of seasoned heroin injectors enrolled in treatment programmes

had switched to mephedrone (Chadd, 2013; Daly, 2012; Dulin, 2012; Omnicans, 2012). These reports did not offer any data regarding the prevalence of mephedrone use within this population, but they were clear evidence of this phenomenon. Data from the Harm Reduction Database for Wales, which collects reports from needle and syringe programmes from across the country, indicated that between 2011/12 and 2013/14 there was a substantial increase in individuals who declared NPS (including mephedrone) as their primary drug of choice: from 76 in 2011/12 to 206 in 2013/14, a rise of 171% (Public Health Wales, 2015). This is supported by data from referrals to substance misuse treatment in Wales by main substance. The number of those admitted to treatment with mephedrone as their main substance of abuse increased from 61 individuals in 2010/11 to 153 in 2011/12, to 651 in 2012/13 (Welsh National Database for Substance Misuse, 2014).

As it can be deduced from the above discussion, there are not many data out there that captured the use of NPS among the hidden population of problem drug users. Moreover, the results of these studies are inconsistent, complicating even more the knowledge on this topic. And as if this was not complicated enough, the data on which these studies rely is also problem, a subject to which I turn next.

Shortcomings and Limitations of the Data

All of the above studies used a self-report method, relying on respondents' accounts. Not considering possible recall and reliability issues which are common for this type of data (Bryman, 2009; Maxfield and Babbie, 2009), there is another factor that could be affecting the validity of these findings. In the case of NPS there is a lot of confusion regarding their street-names (Hungarian National Focal Point, 2013), and as Sheridan et al. (2013) and Bretteville et al. (2013) note, the participants' reports are based mainly on assumptions rather than reality as far as the real chemical composition of substances they consume is concerned. This confusion is also maintained by marketing techniques used by distributors who tend to mislead consumers with regard to the real content of the packages they sell. Dybdal-Hargreaves et al. (2013), Bacon et al. (2011) and Brandt et al. (2010) have all presented cases in which various synthetic cathinones such as MDPV or methylone, or piperazines like BZP and mCPP have been sold as mephedrone or ecstasy.

In the light of the above difficulties, the Hungarian National Focal Point (2013) suggested that seizure data from the police should be used to measure the prevalence of NPS. The appropriateness of this proposal is questionable since UNODC, along with many other commentators, estimate that the police manage to seize on average only around 10% of the

total quantity of drugs available on the market. A more accurate estimation probably could be made using the method employed by Brunt et al. (2012) who looked at the impact the instability of ecstasy market had on drug use patterns in the Netherlands during 2008-2009. These authors have used data from drug testing facilities around the country where drug users could voluntarily and free of charge test the substances they have purchased. In 2013, the Welsh Government opened 'WEDINOS', a similar drug testing service available for anyone living in Wales (and later also in England, Scotland and Ireland), which would make the employment of this method feasible at least in theory (DrugScope, 2014). Nevertheless, the real picture of NPS use would still be incomplete and probably inaccurate due to the lack of large-scale availability of such facilities, and also because it is unrealistic to assume that the sample of drug users utilizing them is representative for the entire drug-user population (Brunt et al., 2012).

Conclusion

This chapter aimed to set the context of the current research and make the reader aware of when, how and why NPS emerged and penetrated drug markets around the world. Despite their misleading name and the fact that most of them are indeed recently synthesized chemicals, not all of the drugs classed as 'New Psychoactive Substances' are actually new. Some of them have existed for thousands of years (i.e. plants such as khat and salvia divinorum), whereas others have been developed at some point during the 20th century, only to be rediscovered during the last decade (e.g. mephedrone). What qualifies all these drugs as NPS is the fact that they have started to be misused recently by a significant number of individuals.

The reasons behind the emergence of NPS around 2005-2006 still remain unclear, but it seems that this was caused by a combination of drug market circumstances, policing actions, economic opportunities, drug legislation loopholes, the rise of the internet and globalisation-related factors.

Considering the problems in measuring the level of NPS use and the contradictory findings of existing attempts to measure this phenomenon, it seems that at the moment there is little known about the actual extent of the infiltration of NPS into the repertoires of drug users in the general population, or more specific groups, such as the population of problem drug users, which is the focus of this thesis.

The topic that is addressed in the following chapter is the use of NPS. The discussion will concentrate on establishing what is generally known about the reasons why, and the circumstances in which, individuals start, continue and finally stop using these substances.

CHAPTER FOUR - The use of NPS

Introduction

The previous chapter discussed the definitions of NPS, their origin, emergence and geographical diffusion around the world, and the prevalence of use of these substances in the general population and more specific groups. This chapter examines in detail what the current drug misuse literature has been able to capture on the motivations for the use of new psychoactive substances. Other relevant issues will be considered as well, such as the impact of NPS use on the overall repertoire of drug use, route of administration, sources of supply, locations of use, drug combinations involving NPS, and trajectories of use following cessation of NPS use. Inspired by Shaw's (2002) idea that the use of a single substance could be studied using a multi-stage approach, I examine the issues separately at each stage in someone's use of NPS, namely the initiation, continuation and cessation of the use of these drugs. It is important to note here that this approach follows the format of later findings chapters.

With regard to the initiation stage, I intend to establish what is known about drug users' motivations for starting using NPS. Moreover, I am interested in the details of this first experience including the route of administration, where the users sourced their first dose of these drugs, and with whom and where the initiation took place.

As far as the continuation stage is concerned, the discussion will initially focus on the reasons why drug users persist in the use of NPS and what patterns of use of these drugs they might develop over time. Additionally, I will consider the impact that these new psychoactive substances have on the users' existing repertoire of drug use, and the route of administration adopted during the continued use of these drugs.

Finally, with regard to the last stage in someone's use of NPS, namely cessation, I initially consider the motivations for stopping the use of these drugs. Subsequently, I explore the factors that enable drug users to maintain their decision to stop, which are generally different from those that influence these individuals to make the initial decision to desist.

Soussan and Kjellgren (2016) recently suggested that NPS should be studied individually and not as a whole group of substances because there are important differences between the numerous drugs included in this category. Such differences include, among other aspects: pharmacological effects, motivations for use, sources of supply, and methods of administration.

Consequently, these authors argued that investigations which focus on individual NPS should be employed more often because they are likely to yield ‘more subtle and detailed knowledge’ about this under-researched subject (Soussan and Kjellgren, 2016:83). A similar approach was adopted in this chapter, and also throughout the later findings chapters, where mephedrone and synthetic cannabinoids were examined separately.

Initiation into NPS use

The issue of why people start using drugs has been covered extensively in the drug misuse literature. However, the current knowledge about motivations for initiation in the use of NPS is limited, with various commentators arguing for more studies to cover this problem (Moore et al., 2013; Soussan and Kjellgren, 2016). A review of the literature on mephedrone and synthetic cannabinoids initiation is presented below.

Initiation into mephedrone use

There are a few topics of interest related to the initiation into the use of mephedrone, such as the reasons why individuals decide to try this drug for the first time, the route of administration used at initiation, where the initiation takes place, and what is the source of supply for the initial dose of mephedrone. Each of these issues are discussed in turn.

Motivations

Mephedrone was the first NPS that gained popularity in the UK (Measham et al., 2010) and this attracted researchers’ attention to study its use in more detail. Because the first adopters of this new drug were young adults, most of the initial studies that focused on the initiation into the use of mephedrone focused particularly on this specific population, which included for instance school/college aged students (Dargan et al., 2010), bar-goers (Measham et al., 2011), club-goers (Measham et al., 2011a; Wood et al. 2012), and dance music fans (Winstock et al., 2010a).

Authors like McElrath and O’Neill (2011), Brunt et al. (2011), Matthews and Bruno (2010), Measham et al. (2010) and Van Hout and Brennan (2012), among others, acknowledge that what initially attracted young adults to mephedrone were its legality and widespread availability. Researchers also note that the adoption of mephedrone by this population in 2009-2010 was facilitated by market-level factors such as deteriorating potency and availability of drugs like ecstasy and cocaine, which were these individuals’ traditional drugs of choice (Hoare and Moon, 2010; Bird, 2010). The shortage and consequent lower purity of these illicit drugs

led to a feeling of disillusionment within this population of recreational drug users, who decided to displace cocaine and ecstasy with mephedrone (Bird, 2011; Measham et al., 2011; Carthart-Harris et al. 2011; Van Hout and Brennan, 2011).

In April 2010, the UK government classified mephedrone as a Class B drug under the Misuse of Drugs Act 1971. Consequently, authors that looked at the reasons for mephedrone initiation among recreational users after its criminalisation found that mephedrone remained popular, but the motivations for the first use of this drug did not include its legality anymore. Rather, the wide availability of this drug and peer-influence were the most cited factors for the first use of mephedrone (Soussan and Kjellgren, 2016).

Studying a cohort of young recreational drug users in England, Newcombe (2009) reported that the main reason why his participants first tried mephedrone was curiosity, which is consistent with the findings of a more recent study conducted in the US by Norman et al. (2014).

Compared to research among recreational drug users, the use of mephedrone among problem drug users has received less attention and consequently there is less knowledge available on this subject. There are, however, several studies that examined this phenomenon and these are discussed below.

Van Hout and Bingham (2012) conducted a small-scale qualitative study with twelve injecting heroin users in Dublin, who all reported that they displaced heroin with mephedrone. When questioned with regard to the reasons why they started using this drug, participants cited: 1) their preference for injecting, 2) a decline in the availability of heroin, 3) a perceived lack of stigma associated with mephedrone (as opposed to heroin), 4) positive peer reports of the intense euphoric rush and longer lasting effects of this drug, and 5) the apparent lack of mephedrone detection through routine drug tests. Despite providing comprehensive accounts about mephedrone initiation, this study used a sample of exclusively heroin injectors, thus excluding other problem users of heroin who preferred a different administration route and problem users of other drugs such as amphetamine and/or crack cocaine.

In their quantitative survey of injecting drug users in the US, Wagner et al. (2014) found that the main reasons for these participants' initiation in the use of synthetic cathinones (including mephedrone) were curiosity and because they thought they were using a different drug (mainly methamphetamine).

Kapitany-Fevony et al. (2015) conducted a study among long-term opiate users in Hungary and reported that their participants started to substitute opiates with synthetic cathinones

(including mephedrone) in order to experience the desirable high reported by other fellow drug users who were already using these new drugs (also reported by Freeman et al., 2012). Moreover, in accordance with the findings of Dickson et al. (2010), Van Hout and Bingham (2012), Peterfi et al. (2014) and Racz et al. (2013), these participants reported that their initiation into the use of synthetic cathinones was also influenced by a significant decline in the availability and purity of heroin on the local market.

The preference for mephedrone or other synthetic cathinones among heroin users is regarded as a strange phenomenon, mainly because of the significant differences in the psychopharmacological effects of these two groups of substances. Mephedrone and the other related synthetic cathinones are stimulant drugs, whereas heroin and the other opiates – which were the first drugs of choice of many problem drug users in the above studies – are depressants. Researchers have concluded that the popularity of the synthetic cathinones among this population ‘is explained by rather practical than psychopharmacological’ reasons (Kapitany-Fevony et al., 2015:241). A similar phenomenon that seems to support this suggestion was observed in Australia in 2000-2001. Longo et al. (2004) explain that numerous reports from late 2000 and early 2001 indicated a significant reduction in the supply and purity of heroin on the Australian market, which has often been referred to as ‘the Australian heroin drought’. According to Miller et al. (2001), Rouen et al. (2001), Dagenhardt et al. (2002) and Topp et al. (2002), this reduction in the availability of heroin coincided with an increase in the use of other illegal drugs, particularly psychostimulants such as cocaine and methamphetamine. This led Longo et al. (2004:150) to conclude that ‘injecting drug users appear to change their patterns of use according to changes in price and availability of drugs. While heroin may have become hard to obtain for a while, methamphetamine [and cocaine were] readily available and seemed to gain popularity’.

Routes of administration

Mephedrone comes in the form of a white powder and there are many possible routes of administration reported in the literature, such as: snorting, bombing², smoking, and injecting – either sub-cutaneous, intramuscular or intravenous (McElrath and O’Neill, 2011; O’Neill, 2014; Bretteville et al. 2013).

Among recreational drug users, the most often cited route of administration is through nasal insufflation, with ‘bombing’ also a popular option (McElrath and O’Neill, 2011; Carhart-Harris

² The term ‘bombing’ refers to mephedrone consumption by dissolving a quantity of the drug in liquid or wrapping a quantity of powder in paper and swallowing it. (O’Neill, 2014:426)

et al., 2011; Lea et al., 2011; Matthews and Bruno, 2010; Winstock et al., 2011). Unfortunately, there are few that recorded the initial route of administration for mephedrone; instead, most research simply report the preferred consumption method of their participants. There are, however, a few exceptions, such as Freeman et al. (2012), who reported that all of their respondents consumed mephedrone intra-nasally at initiation. Similar findings were reported by McElrath and O'Neill (2011) and O'Neill (2014). Additionally, Winstock et al. (2011) indicated that 79% of their participants first snorted mephedrone, with a further 10% having 'bombed' the drug on their first consumption episode.

Among problem drug users, the most popular routes of mephedrone administration noted in the literature (without distinguishing between initiation and further use) are intravenous injecting and to a lesser extent, snorting and 'bombing' (Csak et al., 2013; Kapitany-Fevony et al., 2015; Peterfi et al., 2014; Racz et al., 2012; Wagner et al., 2014). Van Hout and Bingham's (2012) study is the only one in which the initial method of mephedrone consumption within problem drug users' population was recorded. According to these authors, 9 out of 12 participants reported intravenous use of mephedrone on the first episode, with two respondents indicating that they snorted mephedrone on this occasion.

Location

In terms of where the first episode of mephedrone consumption took place, the literature indicates that the most popular locations among recreational users were: in a club/bar, at a rave/house party, at home, or at a friend's house (Lea et al., 2011; McElrath and O'Neill, 2011; Measham et al., 2011; Norman et al., 2014).

Van Hout and Bingham (2012) indicated that among their participants, injecting of mephedrone mainly took place in isolated laneways, public toilets, or in flats. However, these authors do not mention whether these locations were where their participants first used mephedrone. A study that did record where the *first* episode of mephedrone consumption took place in the case of problem drug users was Kapitany-Fevony et al.'s (2015), which was conducted in Hungary. According to these researchers, the problem drug users they interviewed first tried mephedrone either at discos or parties in town, or at home.

The initiation of mephedrone use often took place in the presence of friends or a partner, and to a less significant extent alone, and these findings are common both with regard to recreational users (McElrath and O'Neill, 2011) and problem users alike (Van Hout and Bingham, 2012; Kapitany-Fevony et al., 2015).

Sources of supply

The most often cited sources for the first dose of mephedrone were from a dealer or from a friend or an acquaintance, and these apply both to recreational and problem drug users (McElrath and O'Neill, 2010, 2011; O'Neill, 2014; Wagner et al., 2014; Kapitany-Fevony et al., 2015). Interestingly and in contradiction with the widely held view that the internet was a major influence in the rapid diffusion of mephedrone among drug markets, there are only a few studies with mephedrone users who mentioned buying their first dose of mephedrone from an online source (e.g. Kapitany-Fevony et al., 2015). The general consensus in the literature is that the internet was not a significant source for mephedrone either at initiation or afterwards.

Initiation into synthetic cannabinoids use

Similar to the section on mephedrone, issues related to motivations for initiation, route of administration, location of first use and the source of supply for the first dose of synthetic cannabinoids are addressed below.

Motivations

The vast majority of data regarding the use of synthetic cannabinoids comes from studies among school-aged youth, criminal justice involved individuals, and internet users (see for instance Schifano et al., 2009; Vandrey et al., 2012; Wish et al., 2013).

According to Vandrey et al. (2012), who conducted a quantitative survey of adult internet users from 13 different countries who reported using synthetic cannabinoids at least once in their lifetime, initiation into the use of these drugs was attributed to curiosity, the desire to feel relaxed and in order to achieve intoxication while avoiding detection in drug testing. The latter reason was also observed by Leoffler et al. (2012) in their sample of military service members who were regularly tested for drugs in their workplace (see also Berry-Caban et al., 2012; Dresen et al., 2011; Johnson et al., 2011). Other reasons for synthetic cannabinoids initiation reported by these individuals were: their perceived safety derived from their legal status (also reported by Every-Palmer, 2011) and their wide availability.

Barrat et al. (2013) conducted an online questionnaire with 316 Australians, most of whom (81%) reported having used cannabis for at least a hundred times in their lifetime. Within this sample, the most common reasons for the first use of synthetic cannabinoids were: curiosity, legality, availability, favourable reports from friends and non-detection in drug testing (see also Sopris, 2008 and Spaderna et al., 2013).

The reasons for synthetic cannabinoids initiation among the population of problem drug users has been generally overlooked in the literature, despite recent anecdotal reports from across the UK that this phenomenon is on the rise (Baker, 2015; RAPt, 2015; Vice, 2017; Walker, 2015). Some clues about this can be found in studies that have focused on the use of synthetic cannabinoids in prisons, which are environments where many problem drug users reside. Ralphs et al. (2017) for instance found that the prisoners they interviewed, most of whom were problem users of heroin and/or crack cocaine, cited, as primary reasons for synthetic cannabinoids initiation, the wide availability of these drugs and the failure of regular drug testing to detect them. Walker's (2015) participants, on the other hand, reported that what attracted his incarcerated participants to use synthetic cannabinoids was boredom, to clear their mind and to forget about the problems associated with prison life.

One rare study that examined the reasons why problem drug users outside the prison environment started using 'Spice' products is Wagner et al.'s (2014) online questionnaire with injecting drug users in the US. These authors found that these participants started to use synthetic cannabinoids due to: curiosity, wide availability and a desire to avoid testing positive on a drug test.

MacLeod et al. (2016) also examined why problem drug users living in the community started using synthetic cannabinoids. These authors found that the primary motivations for trying 'Spice' products among their sample of Scottish long-term users of traditional drugs such as heroin and/or crack cocaine were: ease of access, because they were offered by a fellow drug user and because they thought they were using natural cannabis.

Route of administration

Synthetic cannabinoids are mainly consumed in the same way as the drug that they intend to mimic: cannabis (Bretteville et al., 2013). These substances are mostly smoked after being rolled in a cigarette paper (also called a 'joint' or 'blunt'), and via a pipe, water pipe or a bong, although consumption via vaporization, as well as oral and rectal ingestion, have also been reported (Castellanos et al. 2011; Hu et al., 2011; Leoffler et al., 2012; Vandrey et al 2012).

Since smoking is by far the preferred and almost the exclusive route of administration for synthetic cannabinoids (Khullar et al., 2014; Van Hout and Hearne, 2016), two observations can be made. Firstly, no differences in the consumption method of these drugs were signalled in the literature between recreational and problem drug users, and secondly, the administration route at initiation generally remained the same throughout the entire period when someone

used synthetic cannabinoids (Barratt et al. 2013; Vandrey et al. 2012; DeBruyne and Le Borsselier 2015). This is worth mentioning because, as seen in the previous section, things were not as simple in the case of mephedrone, where marked differences between recreational and problem drug users' routes of administration at initiation were reported.

Location

The location where the initiation into the use of synthetic cannabinoids took place is not something to which researchers have paid much attention. Instead, authors have limited themselves to recording where the use of synthetic cannabinoids occurs in general. To this end, the available literature informs us that synthetic cannabinoids use generally takes place at home, either alone or in small groups (Bretteville et al. 2013; Vandrey et al. 2012; Wersé and Morgenstern, 2011).

Nevertheless, there are a number of studies that did mention the specific location where the first synthetic cannabinoids consumption episode took place, because this was a rather unusual one. According to Ralphs et al. (2017), Walker (2015) and other reports from various public institutions (see for instance RAPt, 2015; HMIP, 2014, 2015; Home Office, 2014), many problem drug users were introduced to synthetic cannabinoids while they were in prison. This is important because some commentators indicated that following their initiation during incarceration, some problem drug users carried this pattern of use outside the prison environment (Ralphs et al. 2017).

Sources of supply

The source of the first dose of synthetic cannabinoids is again an aspect that has been generally overlooked by researchers who studied this phenomenon. Instead, researchers indicate the sources of supply for these drugs in general.

In their internet questionnaire with injecting drug users in the US, Wagner et al. (2014) reported that the most common source for synthetic cannabinoids was friends, followed by gas stations/convenience stores, and specialised head shops/smokeshops. None reported obtaining synthetic cannabinoids from the internet.

Vandrey et al.'s (2012) participants reported obtaining 'Spice' products from retail vendors (e.g. head shops, gas stations/convenience stores), the internet, or from friends, while only a few reported obtaining synthetic cannabinoids from an illicit drug dealer. In their review of the existing literature on synthetic cannabinoids, Bretteville et al. (2013) reported that these drugs

are sold over the internet, in so-called ‘smart shops’ or ‘head shops’, in gas stations, in convenience stores, by tobacco specialists and by street dealers.

Persistence in the use of NPS

Following initiation, those individuals who decide to continue using mephedrone and/or synthetic cannabinoids enter the persistence or continuation stage of their use of these substances. A review of the research on persistent use is presented below.

Mephedrone persistence

There are various reasons why people continue using NPS after their first experimentation, and some of these motivations are likely to overlap substantially with their reasons for trying these drugs in the first place (MacLeod et al., 2016). However, the reasons for initiation do not explain entirely why people continue taking drugs (Coomber et al., 2013) and therefore a more thorough examination of the motivations for continued use of NPS in particular is necessary. Other topics that are addressed in the section below are the route of administration during persistence, drug combinations involving mephedrone and the impact of the use of this drug on drug users’ overall repertoire of drug use.

Motivations

After a thorough research of the literature, it became apparent that the only reason for continued mephedrone use that overlaps with those for initiation was the wide availability of this drug. This motivation was valid both for recreational users who continued using mephedrone (Allen, 2016; McElrath and Van Hout, 2011; Van Hout and Brennan, 2012), and problem drug users as well (Chadd, 2013; Van Hout and Bingham, 2012; MacLeod et al., 2016).

In terms of specific reasons for continuation, the enjoyment of mephedrone effects was the most cited motivation among recreational drug users (McElrath and O’Neill, 2011; Measham et al., 2010; Soussan and Kjellgren, 2016; Van Hout and Brennan 2012), followed by cost-efficiency (Carthart-Harris et al., 2011; McElrath and Van Hout 2011; Sande, 2016; Soussan and Kjellgreen, 2016; Sumnall et al. 2011, Van Hout and Brennan 2012; Vardakou et al. 2011), and the fact that the users developed a physical and/or psychological dependence to this drug (Freeman et al., 2012; Soussan and Kjellgren, 2016).

For problem drug users, the most common reason for continuing the use of mephedrone was enjoyment of the effects (Chadd, 2013; MacLeod et al., 2016). Van Hout and Bingham (2012) also noted this as one the main motivations for continued mephedrone use, but they went a bit

further and explained that what their participants particularly liked about mephedrone's effects was the fact that it reminded them of the good-quality MDMA/ecstasy tablets they used to consume during the 1990s.

The development of an addiction to mephedrone was another reason cited in the literature for problem drug users' continued use of this substance. According to Hanson et al. (2012), addiction is characterised by the presence of: 1) an increased tolerance for the drug, 2) signs of physical and/or psychological dependence, and 3) withdrawal symptoms following cessation of use. MacLeod et al. (2016), Newcombe (2009) and Winstock et al. (2011) all reported how the mephedrone users they studied developed a rapid tolerance to this substance and explained that this was due to the short-lived effects and the 'moreish' nature of mephedrone, which makes its users consume it compulsively and in increasing amounts. Commentators also documented the development of a psychological dependence to mephedrone and withdrawal symptoms following cessation of use among users of this drug (Kapitany-Fevony et al., 2015; Van Hout and Bingham, 2012), thus confirming its addictive nature.

Its consistent high potency and low price made mephedrone to be perceived by problem drug users as a cost-effective drug, which was another reason why they continued using it after initiation (Chadd, 2013; MacLeod et al., 2016; Van Hout and Bingham, 2012).

Finally, another less commonly reported motivation for continued mephedrone use among problem drug users was the non-detectability of this substance in routine drug tests (McNamara, 2010; Vardakou et al., 2011; Van Hout and Bingham, 2012).

Routes of administration

During the continuation phase, mephedrone users displayed two possible avenues in terms of their route of administration. Some of them retained their initiation consumption method, while others transitioned to a new one. There were marked differences between recreational and problem drug users regarding this aspect, which are elaborated below.

Recreational drug users' most popular routes of administration for mephedrone are intranasal insufflation (snorting) and 'bombing', which are equally used at initiation (see the section above). During the continuation phase, commentators identified transitions between these two consumption methods, in both directions: either from snorting to bombing or vice-versa. McElrath and Van Hout (2011), for instance, report that some of their participants initially snorted mephedrone, but after a period turned to bombing. These individuals' rationales for this transition were the physical damage inflicted on their nostrils by insufflation and the

perceived safety associated with bombing, a finding that is supported by other researchers as well (e.g. Winstock et al., 2011; McElrath and O'Neill, 2011; O'Neill, 2014). Several other studies reported a transition from bombing to snorting among recreational drug users, which was explained by these individuals' desire for a better, more rapid high which was associated with insufflation (Van Hout and Brennan, 2012).

Within the population of problem drug users, the most common administration routes for mephedrone are injecting, snorting and, to a lesser extent, 'bombing' (Wagner et al., 2014; Van Hout and Bingham, 2012; MacLeod et al., 2016; Kapitany-Fevony et al., 2015). During the continuation phase, researchers reported the existence of transitions between these consumption methods, with the most common one being a move from initially snorting the drug to later injecting it (Zawilska and Wojcieszak, 2013; Schifano et al., 2011; De Luca et al., 2009). Mephedrone transition from snorting to injecting was explained in terms of a better and quicker 'high', longer lasting effect, but also due to the feeling of nasal burning and damaged nostrils associated with insufflation (Van Hout and Bingham, 2012). Newcombe (2009), instead, reported that his participants were reluctant to inject due to the traditional problems associated with this route of administration - i.e. risk of blood-borne viruses, damage to injecting sites, and compulsiveness (also reported by Aarde et al., 2013).

Nevertheless, it seems that most problem drug users did not change their initial administration route during the continuation phase of mephedrone use. Most of these individuals are long-term injecting drug users and this was the consumption method they used both at initiation and afterwards (Kapitany-Fevony et al., 2015; Racz et al., 2012; Csak et al., 2013; Van Hout and Bingham, 2012; MacLeod et al., 2016).

Drug combinations involving mephedrone

The researched literature reveals that mephedrone users often consume this drug in combination (either simultaneously or sequentially) with other substances, both legal and illegal.

Among recreational users, many authors reported the use of mephedrone simultaneously with substances such as: alcohol (Lea et al., 2011; Measham et al., 2010; Newcombe, 2009; McElrath and O'Neill, 2011; Van Hout and Brennan, 2012; Winstock et al., 2011), cocaine (Hayashi et al., 2011; Kerr et al., 2010; Lea et al., 2011; Winstock et al., 2011), ecstasy (McElrath and O'Neill, 2011; Lea et al., 2011; Winstock et al., 2011), Valium or other benzodiazepines (McElrath and O'Neill, 2011), and poppers (McElrath and O'Neill, 2011). A

limited number of studies also reported the subsequent use of cannabis after mephedrone consumption, mainly to ameliorate the comedown effects of mephedrone (see for instance Newcombe, 2009)

Within problem drug users, the simultaneous use of mephedrone along with other substances was reported, but only in a limited number of studies (see for instance Van Hout and Bingham, 2012). However, the subsequent use of mephedrone with other drugs, meaning after a mephedrone consumption episode, was more common. Problem drug users often reported to use substances such as benzodiazepines, methadone or alcohol to manage comedown symptoms of mephedrone (Van Hout and Bingham, 2012; Wagner et al., 2014; Kapitany-Fevony et al., 2015).

Mephedrone: displacement drug or addition?

The impact that mephedrone had on its users' repertoires of drug use has drawn some attention recently, with researchers trying to establish whether mephedrone 1) replaces certain drugs in someone's drug use patterns or 2) acts as a simple addition to the existing list of drugs someone was already using.

Guerette and Bowers (2009) adapted the concept of 'target displacement' borrowed from theories of situational crime prevention (Barr and Pease, 1990), to investigate whether mephedrone displaced cocaine and/or ecstasy in recreational drug users' repertoires. According to this theory, users may switch from one target (drug 1 – i.e. cocaine and ecstasy) to another target (drug 2 - mephedrone) because of 'push factors' such as lower purity, diminished access, increased price or disillusionment with the effects of drug 1 (i.e. cocaine or ecstasy) and/or because of 'pull factors' that could include: better quality, availability, lower price or preference for the effects of drug 2 – mephedrone (Moore et al., 2013:277). It would seem that at least in 2009-2010, when mephedrone first appeared on the market in the context of a shortage in good quality cocaine and ecstasy, recreational drug users did indeed displace these drugs with mephedrone (Measham et al., 2010).

In contrast, Moore et al. (2013), who studied a cohort of recreational, but experienced drug users who frequented clubs in the UK, concluded that: 'Mephedrone was added to existing drug repertoires amongst those surveyed and acted to supplement more established club drugs including ecstasy pills, cocaine and MDMA powder, rather than replacing or displacing those drugs' (Moore et al., 2013:276).

A more nuanced perspective of this phenomenon was provided by Hammersley (2010), who suggested a ‘temporary displacement’ of traditional drugs with new psychoactive substances. This author suggested that once NPS are controlled and/or their perceived safety is questioned, their appeal may wane and users may return to their former patterns of illegal drug use. This hypothesis found support in Van Hout and Brennan’s (2012) study of mephedrone users in Ireland and also in Green’s (2008) and Sheridan and Butler’s (2010) studies of BZP users in New Zealand.

A few other studies have examined whether mephedrone was acting either as a potential displacement or a supplement within the repertoires of drug use of problem drug users (i.e. long-term users of heroin, crack cocaine, and/or amphetamine). Based on research published to date, it seems that within this population, the phenomenon of displacement, rather than supplementation, is more common. Van Hout and Bingham (2012), Csak et al. (2012), Racz et al. (2013), Peterfi et al. (2014), and Kapitany-Fevony et al. (2015) all reported that within their samples of problem drug users, mephedrone (and other synthetic cathinones) replaced traditional illicit drugs such as heroin and amphetamines in these individuals’ repertoires of drug use, rather than being adopted as additional drugs.

Synthetic cannabinoids persistence

Similar to the section on mephedrone, the topics that are addressed below are the motivations for synthetic cannabinoids persistence, route of administration during persistence, drug combinations involving synthetic cannabinoids and the impact of the use of these drugs on drug users’ overall repertoire of drug use. Each of these are discussed in turn.

Motivations

A thorough research of the literature on this topic revealed that there were no differences between reasons for continuing synthetic cannabinoids use between recreational users, on one hand, and problem drug users, on the other hand, and therefore these two groups’ motivations for continuation are examined together. Another aspect highlighted in the literature was that the reasons why drug users continue to consume synthetic cannabinoids often overlap with reasons why they started taking these drugs in the first place, which was also observed in the case of mephedrone (MacLeod et al., 2016). Nevertheless, as noted by Coomber et al. (2013), authors also stressed the existence of some specific motivations for continuation, which differed from the reasons for trying. Each of these are discussed below.

The wide availability of synthetic cannabinoids was one of the main reasons why drug users started using them (see the ‘initiation’ section above), but it seems that this also motivated these individuals to continue taking these drugs. Authors such as Barratt et al. (2013), Wagner et al. (2014), MacLeod et al. (2016), Ralphs et al. (2017) and Sutherland et al. (2017) all cite the synthetic cannabinoids’ ease of access as being a significant factor in drug users’ continued use of these substances.

Other common reasons for both initiation and continuation in the use of synthetic cannabinoids were: 1) the fact that these substances were not detectable through routine drug tests (Castellanos et al., 2011; Every-Palmer, 2011; Vandrey et al., 2012; Barratt et al., 2013; Spaderna et al., 2013; Wagner et al., 2014), and 2) their legality (Soussan and Kjellgren, 2016; Sutherland et al., 2017).

Reasons for continued use of synthetic cannabinoids that were different from reasons for initiation included: 1) enjoyment of these drugs’ effects (Vandrey et al., 2012; Barratt et al., 2013; Wagner et al., 2014; MacLeod et al., 2016; Soussan and Kjellgren, 2016); 2) cost-effectiveness (Schifano et al., 2009; Every-Palmer, 2010; MacLeod et al., 2016); 3) consistent potency (Spaderna et al., 2013; Ralphs et al., 2017), and 4) to reduce cannabis use (Barratt et al., 2013; Papanti et al., 2014).

Finally, another motivation for the continued use of synthetic cannabinoids that was often cited in the literature is the development of physical and/or psychological dependence to these drugs. The addiction potential for synthetic cannabinoids was highlighted in early research that focused on these substances’ psychopharmacology (Schifano et al., 2009), and it was later confirmed in studies that examined the users’ experiences with these drugs (Vandrey et al., 2012; Gunderson et al., 2012; Spaderna et al., 2013; Van Hout and Hearne, 2015; MacLeod et al., 2016; Ralphs et al., 2017).

Route of administration

The synthetic cannabinoids are overwhelmingly smoked – either in a cigarette, via a pipe or waterpipe or via e-cigarettes, with other routes of administration such as oral or rectal ingestion very rarely mentioned in the literature (DeBruyne and LeBoisselier, 2015). This means that, unlike mephedrone, where changes in the consumption method were observed between initiation and continuation, in the case of synthetic cannabinoids such modifications were not reported in the literature. Both recreational and problem drug users started using these drugs

by smoking them and maintained this route of administration through the continuation phase as well.

Drug combinations involving synthetic cannabinoids

Numerous studies reported that synthetic cannabinoids are not used in isolation; rather, those who use these drugs often use other legal and/or illegal substances as well. Alcohol, cannabis, and tobacco were the substances most often reported to be used during their lifetime or in the last twelve months by those who also reported synthetic cannabinoids use (Castellanos et al., 2011; Hu et al., 2011 (Spaderna); Winstock and Barratt, 2013b (Leoffler); Vandrey et al., 2012; Leoffler et al., 2016).

What is unclear though from these studies is whether synthetic cannabinoids are used in combination with these drugs either sequentially (i.e. at the end of the consumption episode), or simultaneously, during the same consumption episode. Only the latter pattern of use has been, to the best of my knowledge, reported in the literature. Barratt et al. (2013), Vandrey et al. (2012) and Schifano et al. (2010) all noted that their participants used synthetic cannabinoids simultaneously with other substances such as alcohol, cannabis, tobacco and ketamine.

It is also worth mentioning that synthetic cannabinoids users are often unwittingly combining drugs when they smoke 'Spice' products. There are many reports that highlighted the fact that packages of synthetic cannabinoids are very likely to contain a combination of a few synthetic cannabinoids molecules (Seeley et al., 2012) or other substances such as: psychoactive herbs and plants (Ogata et al., 2013); benzodiazepines (Papanti et al., 2014); tryptamines (Park et al., 2013; Uchiyama et al., 2013a); phenethylamines/NBOMe compounds (Uchiyama et al., 2014); cathinones; and opioid receptor agonists (Uchiyama et al., 2013b).

Synthetic cannabinoids: displacement drug or addition?

To date, there is very little, and contradicting, knowledge about the impact that synthetic cannabinoids have on the overall repertoires of use of those who consume these substances, which is also valid in the case of other NPS (Moore et al., 2013). The generally scarce data available on this subject made it difficult to establish clearly whether there are any significant differences between recreational and problem drug users in terms of the impact that synthetic cannabinoids use have on the drug use repertoires of these two distinct populations.

Some authors report that synthetic cannabinoids constitute a supplement, an addition, to existing drug use repertoires of both recreational (see for instance Patrick et al., 2015; Barratt et al., 2013), and problem drug users (e.g. MacLeod et al., 2016; Wagner et al., 2014).

Others suggested that synthetic cannabinoids could become the first drug of choice of at least some of their participants. In their samples of recreational drug users, Vandrey et al., (2012) and Winstock and Barratt (2013) reported that a small proportion of their respondents replaced their primary drug of choice - natural cannabis – with synthetic cannabinoids. No similar pattern of use was reported among problem drug users, but anecdotal reports in the press suggest that this phenomenon could be happening within long-term drug users as well (Maude, 2017; Perraudin, 2017; Robb, 2017). According to these sources, seasoned heroin and/or crack cocaine users in England moved away from these traditional illicit drugs and started instead to use synthetic cannabinoids.

Desistance from the use of NPS

Compared to the stages of initiation and continuation, the cessation of the use of NPS has received considerably less attention in the literature. This statement is valid both for recreational and problem drug users who have stopped using these drugs and is equally applicable for mephedrone and synthetic cannabinoids.

Mephedrone desistance

After extensive searches of the literature, it became apparent that only two studies to date have examined explicitly the issue of stopping the use of mephedrone by problem drug users. Van Hout and Bingham (2012) found that their participants – who were all seasoned heroin injectors who switched to injecting mephedrone – decided to cease the use of the latter drug due to the negative physical and psychological effects produced by this substance. Moreover, since the study was conducted shortly after mephedrone was banned in Ireland, respondents reported that other factors that facilitated cessation were the consequent decline in availability due to the closure of 24 hours shops where mephedrone could be bought at any time, an increase in price, and concerns about street-dealers product contamination.

The other relevant piece of research is that of MacLeod et al. (2016), who conducted a study in Scotland among vulnerable persons (i.e. people who inject drugs, mental health service users, vulnerable young people, and homeless people), many of whom were long term users of heroin and/or crack cocaine. These authors found that some of the key reasons why their participants stopped taking mephedrone were seeing the negative effects of this drug in others

and not liking the effects of the drug. Respondents of this study distinguished between disliking immediate intoxication effects and longer-term effects. In the case of mephedrone, participants reported that they did not enjoy the longer-term effects. Another reason cited by these problem drug users for stopping the use of mephedrone was the acknowledgement of the psychological damage inflicted by the use of this substance. Finally, participants indicated that the negative physical effects of mephedrone also contributed to their decision to stop using, but to a lesser extent compared to the negative psychological effects (MacLeod et al., 2016).

The scant knowledge available on cessation of mephedrone use by problem drug users can be supplemented with data from a few studies that have examined this phenomenon among recreational drug users.

The change in mephedrone's legal status from a licit to an illicit substance was one of the main factors that were associated with a decline in the use of this drug. Several researchers suggested that recreational drug users stopped using mephedrone following its inclusion in the Misuse of Drugs Act 1971 in the UK in April 2010 (see for instance Carthart-Harris et al., 2011).

However, the above findings did not receive entire support in the literature, with other commentators reporting that despite its criminalisation, mephedrone continued to be used at a similar or even higher level by young adults and other populations such as 'men who have sex with men' (Measham et al., 2011; Wood et al., 2012).

Other authors such as Freeman et al. (2012:799) stressed that use of mephedrone had reduced among recreational drug users as a 'secondary consequence of legislative change'. For instance, McElrath and O'Neill (2011), Winstock et al. (2010) and O'Neill (2014) inferred that the increased cost of mephedrone following its ban might have drawn users away from this drug. Moreover, users also stopped taking mephedrone after its criminalisation due to concern for adulteration by street dealers, who became the main source of supply following the ban (Camilleri et al., 2010; Freeman et al., 2012; McElrath and O'Neill 2010, 2011). In drug users' view, this exacerbated mephedrone's probability to inflict unwanted harms (Fleming, 2010; Newcombe, 2009; Measham et al., 2010).

Other studies suggested that market factors contributed to recreational drug users' rejection of mephedrone. For instance, Van Hout and Brennan (2012) found that their participants stopped taking mephedrone as a result of a return in the quality and availability of traditional recreational drugs such as cocaine and ecstasy from 2011 onwards.

Additionally, O'Neill (2014) observed that some of her participants mentioned feeling stigmatised because of their use of mephedrone not only from the wider public, but also from within the population of drug users. Even though the author did not make this claim explicitly, it is likely that the stigma associated with mephedrone and its use might also play a role in drug users' decision to stop using this substance. Other studies that examined the impact of stigma on patterns of traditional drug use support this possibility of drug users ceasing or avoiding the use of a substance when this becomes stigmatised within the population of drug users (Simmonds and Coomber, 2009; Fitzgerald et al., 2004; Copes et al., 2014).

Synthetic cannabinoids desistance

As in the case of mephedrone, there is little knowledge available in the literature regarding the cessation of synthetic cannabinoids use.

MacLeod et al. (2016) reported that their participants, who were all problem drug users, stopped using synthetic cannabinoids mainly because they had seen the negative effects of these drugs on others. Another motivation was that they disliked the immediate intoxication effects of these drugs and consequently quickly stopped using them, a finding that was also reported by Soussan and Kjellgren (2013, 2016) and Blackman and Bradley (2017). Finally, the acknowledgement of significant physical and psychological damage produced by synthetic cannabinoids was also mentioned by these participants as factors that contributed to their decision to stop (MacLeod et al., 2016).

Winstock and Barratt (2013) compared the perceived effects of natural cannabis and synthetic cannabinoids among a population of recreational drug users and reported that their respondents largely preferred the natural form of cannabis over the synthetic ones. Participants cited the negative immediate effects and the physical damage produced by synthetic cannabinoids as motivations for their decision to stop using these drugs and choose natural cannabis instead. Van Hout and Hearne (2016) also reported that their participants were inclined to stop using synthetic cannabinoids and return to the use of natural cannabis because of the unpleasant physical and psychological effects associated with dependence to the former substances. The same authors mentioned that their participants also developed a sentiment of fear with regard to synthetic cannabinoids, which was fuelled by the addiction potential for these substances and by witnessing multiple suicides among other peer users of these drugs.

Baker (2015) also commented on the fact that his participants perceived synthetic cannabinoids as dangerous substances and felt fearful toward these drugs, but explained that these sentiments

were prompted by the unknown contents of these drugs and a lack of knowledge about their long-term effects. Another reason why these individuals were scared of synthetic cannabinoids was the fact that they felt vulnerable when using them because these drugs allegedly exacerbated some pre-existing mental health problems such as propensity for self-harm and/or paranoia.

In Blackman and Bradley's (2017:72) participants' view, synthetic cannabinoids were no longer regarded a 'bohemian curiosity' among drug users; instead, it 'had fallen down the hierarchy of drug acceptability', suggesting that these drugs were now being stigmatised within this population. These individuals referred to synthetic cannabinoids as being 'dirty' and they rationalised that this negative label contributed to their rejection among this group of drug users, a finding which is supported by previous reports that highlighted the influence of stigma on people's decisions to stop using traditional drugs (Copes et al., 2014).

Trajectories of drug use after NPS desistance

An important aspect related to the stopping of mephedrone and synthetic cannabinoids use is what users of these substances do after they cease taking them. Possible avenues followed by drug users after stopping include returning to their previous pattern of illegal drug use and stopping using drugs altogether (Hammersley, 2010; Moore et al., 2013; Van Hout and Brennan, 2012; Green, 2008; Sheridan and Butler, 2010).

The few available studies that have examined problem drug users' trajectories after they stopped using NPS report that these individuals resumed their previous patterns of use rather than becoming completely abstinent. Van Hout and Bingham (2012) and MacLeod et al. (2016) found that their participants went back to using opiate-based products following their experience with mephedrone. Similarly, Hammersley (2010), MacLeod et al. (2016), Winstock and Barratt (2013) and Van Hout and Hearne (2016) reported that their participants (who were both problem or recreational drug users) went back to using natural cannabis after stopping their use of synthetic cannabinoids.

Conclusion

According to the literature reviewed in this chapter, problem drug users first try mephedrone mainly because of market-level factors such as a decline in the availability and purity of heroin or other traditional illicit drugs on the local market, coupled with wide availability of mephedrone. Other cited reasons for mephedrone initiation were: curiosity, positive peer reports about the effects of this substance, an apparent lack of stigma associated with

mephedrone (as opposed to heroin and/or crack cocaine), and a preference for using drugs intravenously.

The motives cited by problem and recreational drug users for initiation in the use of synthetic cannabinoids were relatively similar to those for mephedrone and these included: curiosity, legality, their wide availability, and non-detectability of these substances through routine drug tests.

Continuation of mephedrone use was reportedly motivated by market-level factors such as the availability of this substance (also cited as a reason for initiation) and its cost-efficiency in comparison to other illicit drugs available on the market. Further reasons identified in the literature were: the enjoyment of mephedrone's effects, the development of psychological and to a limited extent, physical dependence to this drug, and its non-detectability through routine drug tests.

Motivations for continuing the use of synthetic cannabinoids were the same for problem and recreational drug users, respectively. A number of reasons for continued use of these substances were similar to those for trying them in the first place, and these were: their wide availability, non-detectability through routine drug tests and their legality. Motivations that were exclusively valid for continued use included: enjoyment of the effects, cost-efficiency compared to natural cannabis, the development of physical and psychological dependence, consistent potency, and to reduce cannabis use.

According to the existing literature reviewed here, the use of mephedrone tends to be temporary among problem drug users. These individuals cite as reasons for stopping using mephedrone: witnessing the negative effects of mephedrone on others, a dislike for the long-term effects, and the acknowledgement of the significant physical and psychological damage inflicted by this drug.

The motivations advanced by problem drug users for stopping their use of synthetic cannabinoids were fairly similar to the ones reported for mephedrone. According to the available evidence, the reasons why long-term users of heroin, crack cocaine, and/or amphetamine decide to stop using synthetic cannabinoids are: seeing the effects of these drugs on others, disliking the immediate intoxication effects, becoming aware of the negative physical and psychological effects of these drugs, the development of a sentiment of fear towards these substances, and the stigmatisation of 'Spice' products within their peers.

The limited literature available on the topic of stopping the use of NPS suggests that problem drug users resume their previous drug using patterns following cessation of mephedrone use and choose to use natural cannabis instead of synthetic cannabinoids. However, it is likely that some of these individuals might also decide to quit drugs altogether after their experience with these NPS. Unfortunately, this hypothesis was not reported in the existent literature, but the current study might fill this gap and add to the overall understanding of this phenomenon.

One first aspect to be noted from the above literature overview is that studies on NPS use among recreational drug users are more prevalent than those which focus on problem drug users, leaving the latter group under-researched. Secondly, the majority of studies that did investigate NPS use among problem drug users failed to distinguish between motivations for initiation, on one hand, and continuation, on the other (one notable exception is MacLeod et al., 2016). This constitutes a problem though, because, as Coomber et al. (2013:13) point out, '[e]xplanations as to why people start using drugs, known as initiation, may or may not be satisfactory in accounting for why people continue to take drugs [...]']'.

Thirdly, some significant differences were observed between motivations for initiating, continuing and ceasing mephedrone use on one hand, and synthetic cannabinoids, on the other hand. This finding suggests that investigating the use of NPS by looking at individual substances rather than at the group as a whole yields more accurate, refined results (Sutherland et al., 2017; Soussan and Kjellgren, 2016). Fourthly, the initiation and persistence stages in NPS use have received comparatively more attention than the desistance from the use of these drugs. Finally, most of the pieces of research reviewed in this chapter remained atheoretical in the sense that the authors limited themselves to listing various motivations for drug use decisions without attempting to place these into a clear theoretical model.

Through the current study I intended to fill some of the existing gaps in knowledge about NPS use and also address some of the caveats identified above in the current literature on this topic. For instance, the focus of the research I conducted was the use of NPS among the under-researched population of problem drug users. Moreover, I examined initiation and continuation decisions separately and thus generated findings about NPS use that were more refined than most of those currently available in the literature. Additionally, mephedrone and synthetic cannabinoids were investigated separately, allowing thus for prospective differences between the use of these distinct drugs to become apparent. Finally, a theoretical framework was used to disentangle the meaning of this study's findings.

The next chapter moves on to explain in detail how I investigated the use of NPS among problem drug users, namely the methodology used in this study. The areas that I will cover include: how I gained access to participants, the sample and sampling procedures, the research methods employed to collect the data and how these were analysed, the ethical considerations and finally, the study's limitations.

CHAPTER FIVE - Methodology

Introduction

This chapter outlines the methodological procedures I used in my attempt to understand the use of new psychoactive substances (NPS) among a population of problem drug users in South Wales. As noted by Newcombe (2007) and Cave et al. (2009) the concept of ‘problem drug user’ is a debatable and controversial one. For clarity, I will utilize the definition provided by Coomber et al. (2013:43) who describe ‘problem drug users’ as being ‘characterised by their use of opiates such as heroin, crack cocaine, and sometimes benzodiazepines or amphetamines, in patterns of daily or dependent use’ (for similar definitions, please see Godfrey et al., 2002; Lloyd, 2010; EMCDDA, 2009a). The findings of this study are based on (1) in-depth interviews with 26 problem drug users, 17 of whom were re-interviewed after an average period of six and a half months; (2) thirteen months of observations in the drop-in area of a drug project in South Wales, and (3) in-depth interviews with 11 experienced drug professionals.

It is not un-common within social sciences for researchers to adopt the use of multiple methods (Patton, 1999). Brookman (2000:65) explains that the use of multiple data sources enables the researcher to ‘reap the benefits of data triangulation’, while Inciardi et al. (2009:540) argue that this approach ‘assure[s] a balanced perspective’ of the topic under study. All the data-collection methods I utilised yielded qualitative information, which according to Denzin (1978) and Patton (1999) could be used to perform ‘within-method data-sources triangulation’. This involves ‘comparing and cross-checking ... information derived at different times and by different means within qualitative methods’ (Patton, 1999:1195). More precisely, using this combination of data sources I compared the perspectives of people from different viewpoints in an attempt to increase the credibility of the study’s findings through cross-validation.

This reasoning normally assumes that by adopting such an approach, the researcher is trying to obtain some universal ‘truth’ that lies out there, awaiting to be discovered. However, the socially constructed nature of social phenomena (Faupel, 1991) means that establishing this ‘truth’ is improbable, if not impossible. Instead, the reason for opting to use a multitude of sources was to obtain ‘a more complete ... picture of the situation’ (Inciardi et al. 2009:540), without assuming that one set of data is more valid than the other.

In the initial part of this chapter, I document how access to participants was secured and the sampling techniques I employed to build my sample. This is followed by a detailed look at

each of the data-collection methods I used, where I justify their choice and explain their uses and practicalities. I subsequently present how I analysed my data, discuss some of the ethical issues raised in the process of doing the research and I conclude by outlining some of the study's limitations.

Access

The first decision I had to make at the start of the research was to choose from which locations I would recruit my participants. Geography-wise I targeted the South Wales area because anecdotal evidence from 2012-2013 (Daly, 2012; Dulin, 2012; Omnicans, 2012) indicated that increasing numbers of long-term injecting users of heroin living in this region started to swap their first drug of choice for mephedrone, a stimulant NPS. The prospective participants were considered eligible for the study if they had a present or past history of 'problem drug use', as defined earlier.

With the help of my supervisors, I identified and contacted a number of managers of agencies that work primarily with the type of individuals I was interested in studying. The plan was that that they would put me in contact with key workers within their organisations that in turn would put me in contact with problem drug users who were willing to meet me and consider participating in the study. This process involved working through two levels of access (managers and key-workers) in order to obtain the information I wished. As will become apparent below, this turned out to be a complicated and time-consuming process, but which in the end proved to be a successful one. Much to the amusement of my supervisors and my colleagues, I repeatedly referred to this period of my research as 'The Struggles'. I found little consolation in the fact that I was neither the first, nor the last researcher who faced similar difficulties when trying to get access to 'hard-to-reach' populations such as problem drug users (for similar accounts, see Taylor 1993 and Lankenau et al. 2010).

With the above plan in mind, emails containing details about my study were sent to twenty different third-sector and state-run substance-misuse projects and homeless-support agencies around South Wales. Between June 2014 - when I sent out my first email, and December the same year - when I conducted my first interview, I had direct contact with more than thirty managers and key workers from those organisations who kindly agreed, albeit just in principle, to help me with the study. I individually presented to each of these people the rationale for my study, its main aims and how I intended to do it in practice. As Gans (1982:57) states, 'asking for entry requires the researcher to sell himself to the people whose groups he wishes to enter', which for some people might not be the most enjoyable experience. At times I felt the same,

especially when the 'auction' for my study did not end up with any 'buyers'. However, I found that by repeatedly trying to 'sell' my research and its importance I gained invaluable experience in describing and justifying it to others.

The discussions I had with managers and key workers at this stage benefitted me in three different ways. Firstly, they served the initial purpose to provide me with access to potential participants. Secondly, because they took place in the initial stages of my research, they allowed me to get a much better understanding of the phenomenon I intended to study and informed me of the most relevant issues I needed to focus on. Lastly, English is not my native language so these discussions familiarised me not only with the official terms used in the substance-misuse field, but also with some of the slang terms utilised by the individuals whose behaviour I wanted to study. I later realised that being aware of terms such as 'clucking' (going through withdrawal), and 'buzz' or 'head' (the effects experienced after taking a drug) assisted me in establishing much needed rapport during interviews with drug users.

However, not all of these initial meetings and discussions went the way I thought they would. For instance, one day I left my office expecting to have an informal chat about my study with the manager of a criminal justice agency who worked with clients who have substance-misuse problems. To my surprise and instant panic, when I arrived at the location I found out that I had been invited to attend a monthly meeting of that entire organisation. Moreover, the 'informal chat' was in fact a formal presentation of my study in front of an audience of around twenty drug-misuse professionals and the Police and Crime Commissioner of the entire region. In the end, I delivered an improvised oral presentation of my research, which fortunately was welcomed and well-received by the audience. This was because they too observed the same phenomenon I was interested in studying and were willing to contribute to any effort to better understand it.

In the end, more than twenty agencies from across South Wales agreed to put me in contact with potential participants. However, ultimately only four of these contributed to the total figure of 26 drug users who took part in the study. For confidentiality purposes, the names of all these organisations and of all participants in this research were changed and pseudonyms adopted instead. The recruitment 'pools' for this study were: a homeless-support project ('Ty Mawr'); a criminal justice agency that works with individuals sentenced to drug-rehabilitation requirements ('Belgrave'); and two harm-reduction drug agencies from the voluntary sector ('Hilltop' and 'Catfield').

Lessons for future: failed attempts

The fact that such a small proportion from the total number of the contacted agencies provided me with participants could be due to a variety of factors. One plausible explanation is that my initial recruitment plan was flawed. After access was gained to a number of different recruitment sites, I opted to use invitation cards as the main recruiting tool (please see Appendix 7 at page 257 for a copy of the invitation card). These cards were left in the reception area of each organisation, contained a brief description of myself and the study and asked potential participants to fill in their phone number so I could contact them to arrange the interview. It was hoped that staff members would play an important role of advertising it to their clients and identifying and asking potential participants whether they wanted to take part. From a total number of around two hundred invitation cards that I sent out, only four potential participants responded. Moreover, when I tried to arrange the interviews with these persons, it emerged that: the first phone number was incorrect; the second person never replied and the third one answered but told me he was not interested in talking to me. I managed to arrange an interview for the next day with the fourth person – but he failed to turn up for the interview. To sum up, this approach was not at all as successful as I thought it would be.

Finally gaining access

After this failed attempt, I changed tactics and asked the key workers I had direct contact with whether they personally, or their colleagues, knew any clients who would fit my inclusion criteria and might be willing to take part in my study. Fortunately, I managed to recruit my first three interviewees using this strategy: one from the homeless-support agency ‘Ty Mawr’ and the other two from ‘Hilltop’ – the harm-reduction drug project. At this point, I realised that all the drug users who agreed to take part in the research did so because they trusted their worker who introduced me to them. The role played by such ‘gatekeepers’ or ‘sponsors’ in the recruiting process of ‘hard-to-reach’ populations has been well documented, particularly in the drug-misuse research field (Taylor, 1993) and I now experienced it first-hand. Unfortunately, not many of the key workers I spoke to at that point were responsive to my cry for help and this recruitment method was soon exhausted. I later realised that as in the case of participants themselves, I had to build a rapport with the gate-keepers as well in order for them to be willing to support me. At that moment, they were only helping me because their managers asked them to, and this did not prove to be sufficient.

Another more successful way of securing access to participants involved me visiting for a few consecutive days ‘Belgrave’ - the criminal justice agency that dealt with individuals who were

serving court-ordered drug-rehabilitation requirements. The manager of this organisation instructed members of staff about the purpose of my presence there and they were kind enough to ask almost every client who came through the door of the agency and fitted the inclusion criteria if they wanted to take part in my research (for a similar procedure, see Moyle and Coombe, 2015). After a few days spent at 'Belgrave', I managed to interview six more participants and realised that being present in a place frequented by potential participants was more likely to yield success. I thus decided that this would be my future recruitment strategy.

The last venue I recruited participants from was 'Catfield' - the second of the two drug-projects I gained access to. This was also the most fruitful one: seventeen out of the twenty-six drug users that I interviewed came from this agency. When I realised a large number of possible participants were visiting Catfield every day, I decided I would spend as much time as possible in the drop-in area of the Centre and thus make myself a familiar figure among clients and members of staff. After that was achieved, I began to recruit clients whom I considered eligible for my research either directly or through the help of a key worker. This resembles Gold's (1969:35) 'participant-as-observer' stance, where the observer 'develops relationships with informants through time and where [he] is apt to spend more time and energy participating than observing'.

Gaining access to drug professionals

The decision to include the viewpoints of drug professionals was informed by emerging data from interviews with drug users and observations at 'Catfield'. More specifically, while performing a preliminary analysis of early interview transcripts I realised that I wanted to explore further the issue of the support problem drug users received from drug services for their NPS use problems. Moreover, while conducting observations and negotiating access to participants I became aware of the wealth of knowledge drug professionals had on the topic of NPS use among problem drug users, and realised that including them in my study would enable me to obtain a rounded picture of this phenomenon. In total, I conducted in-depth semi-structured interviews with eleven experienced drug professionals from South Wales.

Compared to the challenges I encountered in my attempt to recruit problem drug users, gaining access to drug professionals was simpler. Three of the drug specialists I interviewed were recruited with the help of my supervisors, who knew them from previous projects in which they had been involved. The remainder were recruited directly by me. While negotiating access to drug users and during my presence at 'Catfield', I met and had informal conversations with a variety of professionals from the substance-misuse field who expressed their willingness to

help me with the study. After I took the decision to include interviews with drug experts, I contacted and arranged interviews with those whom I considered would be the most helpful as far as my research objectives were concerned. To my gratitude, despite their busy schedules, all those I contacted responded positively. Table 2 below provides details about the drug professionals whom I interviewed in this research.

Table 2 – Details of drug experts’ sample

No.	Pseudonym	Institution	Current role	Years in the field
1	Mark	Drug project	Service manager and drug workers’ trainer	33
2	Eric	Drug project	Service manager	15
3	Alison	NHS	Nurse	9
4	Kevin	Drug project	Key worker	13
5	David	Drug project	Drop-in worker	6
6	Andrea	NHS	Consultant Addiction Psychiatrist and Medical Director	12
7	Daisy	Drug project	Needle exchange co-ordinator	11
8	Anthony	Harm reduction drug service	Service manager	29
9	Phil	Drug project	Service manager/Key worker	
10	Neil	Drug project	Drug workers’ trainer on NPS	6
11	Caryl	Welsh Assembly	Drug policy expert	19

Sampling procedures

Non-probability sampling procedures are more often used by researchers when the objects of study are activities or populations hidden from the public view, such as the patterns of drug use of problem drug users (Boeri and Lamonica, 2015). Griffiths et al. (1993) and Van Meter (1990) state that the proven failure of probability methods in reaching hidden populations render non-probability sampling techniques more appropriate in this case. Moreover, qualitative studies like mine, which are more concerned with the depth rather than the breadth of information collected, are better served through samples selected by non-probability methods (Honigmann, 1982).

The main aim of a sampling design is to include individuals who allow the researcher to answer the research questions. With this purpose in mind, I used a combination of purposive sampling

(Patton 2002; Creswell and Plano Clark, 2011) and theoretical sampling (Glaser and Strauss, 1967; Strauss and Corbin, 1998). Apart from allowing the researcher to recruit relevant participants, these techniques have been shown to also increase the validity of findings on hidden populations (Watters and Biernacki, 1989).

As Palys (2008) explains, ‘purposive sampling’ entails the researcher sampling based on wanting to interview individuals who are relevant to the aims of the study. I therefore focused sampling on specific venues known to be frequented by problem drug users. Additionally, in order to be eligible for the research, prospective participants had to have a present or past history of ‘problem drug use’, as defined earlier.

When I started the study, I did not know how many people I would interview. The ‘theoretical sampling’ procedure I employed meant that I would collect data until theoretical saturation was achieved. Strauss (1999:2) explains that ‘theoretical saturation’ is reached ‘when additional analysis no longer contributes to discovering anything new about a category’. Towards the end of my data-collection period, after constantly reviewing the interview transcripts, I knew I had reached ‘theoretical saturation’ and therefore stopped the recruiting process.

Merkens (2004) states that when employing theoretical sampling, during data-collection, it may become apparent that new groups will need to be interviewed, which were not anticipated at the beginning. This happened in my case as well and as a result, sampling for this study was an iterative process, informed and shaped by previously collected data. As mentioned earlier, after a brief analysis of data from early interviews with problem drug users and observations, I decided to also conduct interviews with drug professionals because this would allow me to obtain a more rounded picture of the phenomenon I was studying.

The sampling procedures outlined above enabled me to capture a diverse range of problem drug users and drug professionals and a broad diversity of experiences, whilst also allowing differences between sub-groups of participants to be explored (Lankenau et al., 2010).

Interviews with problem drug users

I chose face-to-face qualitative semi-structured interviews as a data-collection method because they enable researchers to document in detail complex social and personal problems (Rubin and Rubin, 2005). The problematic use of drugs is indeed a complicated phenomenon and attempting to document and also explain it, does require the depth, detail and richness provided by qualitative interviews (Geertz, 1973). Another reason why I opted for this data-source was because, in accordance with Weber’s (1947) interpretative understanding, in order to

comprehend social phenomena, it is necessary to conceive the meanings that actors themselves attach to their actions and the best way to acquire these meanings is by speaking to them directly. Similarly, Athens (1980:14) argues that the viewpoint of the person whose actions are under study should always be explicitly taken into account in explaining their behaviour. Finally, it has been found that generally in qualitative research in the drugs field, participants provide more valid information when interviews are conducted face-to-face (Anglin et al., 1993; Ball, 1967).

The initial interview

While I was still trying to gain access to participants, I worked on a few versions of the schedule for the initial interview. After numerous revised drafts, I was satisfied it comprised the questions that would enable me to explore in sufficient depth the issues I was interested in (please see Appendix 1 at page 248 for a copy of the interview schedule).

The semi-structured nature of the schedule allowed my interviews to be both ‘standardised’ and ‘reflexive’ (Hammersley and Atkinson, 1995:152). Containing only open-ended questions, the schedule was split into three distinct sections. The first set of questions documented the participants’ social background and their history of drug misuse from the onset of their drug use until the emergence of NPS. Participants were particularly encouraged to provide explanations for all the decisions they took regarding their use of drugs. The second part of the schedule contained questions in relation to the NPS. Participants were asked whether they had used any NPS and emphasis was put on the reasons why they had or had not experimented with these drugs. Moreover, their views on these new substances in comparison to traditional drugs and people who used them were explored. Questions were also asked about the relationship between the market for NPS and traditional illicit drug markets. Finally, interviewees were asked for their own insights regarding potentially useful preventative and harm-reduction initiatives in terms of the use of NPS. The last section of the schedule documented the participants’ present and recent use of drugs, with the intention of these issues to be revisited during the follow-up interview.

The day before the first interview, I made this note in my research diary, which summed-up my feelings at the time:

‘02/12/2014 I’m excited but also ... nervous, especially about whether I am going to be able to touch upon the relevant issues. I am also worried about whether the participants will let me record the conversation/discussion and how [they] will interact with me. I am though happy that the work will finally begin! [H]opefully I will become more confident and proficient in interviewing by the time I conduct the next ones’.

Due to time restraints, I did not pilot the interview schedule prior to the start of the research, and therefore used the first few interviews to test it. What I was mainly concerned about was the order of the questions. At that point, I did not know whether the subject of NPS should be tackled at the beginning of the interview, or after the discussion about the interviewees' background and career of drug use. My worry was that by the time we reached questions about NPS, interviewees might 'run out of steam' and I would not get detailed-enough answers on all of the topics I was interested in. After the first four or five interviews I realised my assumption was wrong; the interviews yielded the same standard of quality regardless of the order I asked the questions. This allowed me to be more flexible and whenever possible, decide with the interviewees themselves which subject they wanted to talk about first. Rubin and Rubin (2005) explain that this comes closer to the idea of participants being seen as 'conversational partners', rather than simple interviewees. These authors portrayed a 'partnership' relation between the researcher and the participants, whereby the two parties both play an active role in shaping the conversation during the interviews.

All of the twenty-six initial interviews were conducted in private interview rooms at the agencies where the recruitment took place. My intention was to audio-record the interviews so that I could concentrate more on the topics and dynamics of the interview (Kvale, 1996:160). I knew this would be extremely useful for me, but it could be problematic for the interviewees, as some might be inhibited by the recorder. To make the experience as unobtrusive as possible, I bought a small-size digital audio recorder. Moreover, all the interviewees were asked if they would agree to have the conversation recorded and given the option to refuse. Thankfully, all those whom I asked to have the interviews recorded agreed to it.

From conducting these initial interviews with drug users, I realised that trying to arrange a date for the interview was not feasible in practice. Due to their substance misuse problems and other issues such as homelessness and problems with the law, my potential participants lived a rather disorganised life (Nemes et al., 2002, Gilmore and Kuperminc, 2014). For these reasons, my only chance to conduct an interview was to be present at the recruitment location as often and as long as possible, hoping for potential interviewees to come through the door. This was not sufficient, though. They also needed to be willing to talk to me, have some time to spare, and be in an appropriate state of mind (Anglin et al., 1993). For instance, there were quite a few occasions when people who were suitable and willing to help me turned up at 'Catfield' too intoxicated to have a decent conversation:

'11/03/2015 Catfield – Today I asked Clint if he had 20-30 minutes to spare to have a chat with me, but he said he had a few things to do and he was 'off his face' – and he indeed looked like that [intoxicated]'.

Because so many planets had to align for me to conduct an interview, my data-collection period lasted much longer than I expected. However, the reward for eventually achieving a sample of this size was invaluable.

Sample characteristics

In terms of the drug users' sample composition, this was made up of nineteen males (73%) and seven females (27%). Even though purely coincidentally, it is worth mentioning that the gender distribution of my participants was close to that from the latest report from Public Health Wales (2015) where such data were made available. According to this report, the population of problem drug users in Wales is made up of 79% males and 21% women.

The average age of the problem drug users in my sample was 38.6, with the youngest being 24 and the oldest 55. The average age of the men was 36, while in the case of the women this was 45. The average length of problematic drug use in the sample was 13.3 years, ranging from 4 to 30 years. The average career of problematic use for males was shorter among men than women (12.4 years compared with 16 years respectively). Please see Table 3 below for further demographic and drug use-related details about the sample.

Table 3 – Drug users' sample demographic and drug use characteristics

No.	Name	Age	First drug ever	Age at first drug	First hard drug ³	Age at first hard drug use	Drugs used over time (apart from NPS)	Primary Drug	Years of hard drug use
1	John	33	Cannabis	13	Heroin	15	Cannabis, Heroin, Ecstasy, Crack cocaine	Heroin	18
2	Michael	32	Cannabis	14	Ketamine	20	Ketamine, Heroin, Crack cocaine, Cannabis	Heroin	12
3	Tom	55	Alcohol	20	Heroin	50	Alcohol, Heroin, Amphetamine	Heroin	5

³ This term usually refers to drugs that are seen to be more dangerous and more likely to cause dependency such as heroin, crack cocaine and amphetamine than those designated as soft drugs such as cannabis and LSD (Drugwise, 2018)

No.	Name	Age	First drug ever	Age at first drug	First hard drug ³	Age at first hard drug use	Drugs used over time (apart from NPS)	Primary Drug	Years of hard drug use
4	Biggie	40-45	N/A	N/A	Heroin	30	Heroin, Valium	Heroin	10
5	Dean	32	Heroin	14	Heroin	14	Heroin, Cocaine	Heroin	18
6	Linda	46	N/A	N/A	Heroin	26	Heroin, Crack cocaine, Valium	Heroin	N/A
7	Josh	28	Cannabis	13	Cocaine	16	Heroin, Cannabis	Heroin	12
8	Jane	42	Valium	21	Heroin	22	Heroin, Cocaine, Crack cocaine	Heroin	20
9	Ryan	24	Alcohol cannabis	15	Heroin	16	Heroin, Cannabis	Heroin	8
10	Megan	48	Valium	N/A	Heroin	38	Heroin, Amphetamine, Valium	Heroin	10
11	James	37	Cannabis	20	Heroin	25	Heroin, Ecstasy	Heroin	8
12	Diane	42	Alcohol	16	Heroin	27	Alcohol, Heroin	Heroin	15
13	Clint	40	Cannabis	16	Heroin	24	Heroin, Cannabis, Amphetamine, Valium	Heroin	16
14	Adrian	28	Cannabis	16	Heroin	18	Heroin, Cannabis	Heroin	10
15	Paul	34	Amphetamine	18	Amphetamine	18	Amphetamine, Heroin, Cannabis	Heroin	16
16	Archie	28	Cannabis	8	Heroin	21	Heroin, Valium, Cannabis	Heroin	7
17	Ian	33	Cannabis	14	Heroin	18	Heroin, Valium, Cannabis, Amphetamine	Heroin	15
18	Lawrence	34	Alcohol Amphetamine	13	Heroin	16	Heroin, Ecstasy	Heroin	18

No.	Name	Age	First drug ever	Age at first drug	First hard drug ³	Age at first hard drug use	Drugs used over time (apart from NPS)	Primary Drug	Years of hard drug use
19	Gary	47	Cannabis	16	Heroin	16	Heroin, Barbiturates, Valium, Cannabis	Heroin	31
20	Rhiannon	39	Cannabis	15	Heroin	19	Heroin, Valium, Cannabis, Ecstasy	Heroin	17
21	Gavin	52	Cannabis	13	Heroin	18	Heroin, Crack cocaine	Heroin	34
22	Angharad	52	Amphetamine	36	Heroin	39	Amphetamine, Heroin	Amphetamine	13
23	Rhys	42	Cannabis	13	Heroin	16	Amphetamine, Alcohol, Heroin	Amphetamine	26
24	Rob	32	Alcohol Cannabis	15	Amphetamine	26	Amphetamine, Alcohol, Cocaine, Cannabis, Valium	Amphetamine	4
25	Bill	34	Amphetamine	14	Amphetamine	14	Amphetamine, Heroin	Amphetamine	20
26	Vicky	47	Cannabis	12	Amphetamine	18	Amphetamine, Heroin, Alcohol	Amphetamine	29

Additional demographic details about my participants emerged during the interviews and the microethnography, such as their treatment and employment status. Specifically, almost two thirds of participants (61%, n=16) were in some form of drug treatment at the moment of the interview, and only 4 out of 26 (i.e. 15%) were employed. Details about participants' imprisonment history and involvement in drug dealing were also obtained and these are illustrated in Tables 4 and 5 below.

Table 4 – Drug users' imprisonment history

History of imprisonment	No prison history	Information not obtained
Clint (drug related)	Rhiannon	Bill
John (drug related)	Tom	Dean
Biggie (unknown)	Rob	Linda
Lawrence (drug related)	Jane	Archie
James (unknown)	Megan	Angharad
Ryan (drug related)	Diane	Gary
Josh (unknown)	Adrian	
Ian (unknown)	Paul	

History of imprisonment	No prison history	Information not obtained
Rhys (drug related)		
Gavin (drug related)		
Vicky (unknown)		
Michael (unknown)		
TOTAL: 12	TOTAL: 8	TOTAL: 6

Table 5 – Drug users’ involvement in drug dealing

Involvement in drug dealing	No involvement in drug dealing	Information not obtained
Clint	Vicky	Bill
Gary	Megan	Biggie
Rob	Angharad	Dean
Paul	Jane	Linda
Michael	Tom	James
Rhys	Ryan	
Josh	Diane	
Ian	Adrian	
Gavin	Archie	
John	Lawrence	
	Rhiannon	
TOTAL: 10	TOTAL: 11	TOTAL: 5

The initial 26 interviews lasted on average thirty-six minutes, and their length depended mainly on how much the interviewees were willing to disclose and how responsive they were to my questions. To ‘break the ice’, I started the interviews with a brief description of myself and the study. In order to obtain frank and honest opinions and insights into their drug-use, I felt I needed to be open and honest about myself, too (Brookman, 2000). In addition, I wanted to make sure participants understood why I wanted and needed their views. Almost all the interviewees seemed pleasantly surprised to see that an academic was interested to find out more about their otherwise monotone-perceived existence. Moreover, they were genuinely happy to be able to share some of their ‘expertise’ in the field of drugs with me, in the hope that their accounts could contribute to a better understanding of the phenomenon and possibly drive or at least inform some policy changes in this area (Fry and Dwyer, 2001). Quite often, participants started to voice their opinions as early as this point, before I had actually asked the first question. I thus realised that my opening talk seemed naturally to steer into the interview (Brookman, 2000).

Generally, the interviews were an enjoyable experience both for me and the participants, as the following note from my research diary shows:

'25/03/2015 Catfield – Clint and Diane seem to have totally changed their relationship with me after the interview. Whenever they see me, they start smiling and come to me for an informal chat. Both of them told other clients [of the drug project] that I was 'a good boy' and that I was 'alright'.

The follow-up interview

At the start of the research I intended to conduct follow-up interviews with drug users as a means of identifying and understanding any changes in their use of NPS since the initial interview. However, as the follow-up interviews were unfolding, it became apparent that such changes were very rare among this cohort and like Vincent (2013:1), I decided to use these repeated interviews in order to 'seek clarification or additional information about issues raised in earlier interviews'. At the same time, during the follow-up interview I shared and discussed with participants some of the concepts and themes that emerged from a brief analysis of their initial interviews. This not only enabled me to get a more in-depth understanding of those particular issues, but it also made the interviewees aware of the fact that their accounts were genuinely important and that they were active contributors to the findings of study (Rubin and Rubin, 2005).

In total, I re-interviewed seventeen out of the initial sample of twenty-six drug users. Since I knew from the start that I wanted to follow-up my initial interviews, I tried to take precautions to keep the attrition rate to a minimum. At the end of each initial interview, I asked the interviewees whether they would be willing to be followed-up after a few months and thankfully, all of them agreed. Like Dennis et al. (2002), I then asked them for as many contact details as possible. Most of them provided me with their phone numbers, others with their emails and some told me I should get in touch with their key worker to arrange a further interview. In the case of participants recruited from 'Catfield', my presence in the drop-in area meant I was able to often encounter initial participants, engage them in casual discussions and remind them I wanted to conduct a follow-up interview with them at a later date (Scott 2004).

Despite all these attrition mitigation strategies, I found the process of re-capturing the initial participants a very difficult and time-consuming one, based more on fortune than on careful planning. The fact that I had very little control over whether people would turn up or not at 'Catfield' or whether they would still be in touch with the other organisations I used as recruitment sites was very frustrating. Fortunately, the last few months of the data-collection period were very productive and in the end I was able to re-capture just under two thirds (65%, n=17) of the initial sample.

The nine remaining participants were lost for a variety of reasons. A few enrolled into residential drug rehabilitation, others stopped using the contact details they provided to me, some moved from the area, one received a prison sentence, and a few stopped engaging with the organisation I used as recruitment site. In addition to these rather common reasons, Vicki, one of the initial participants, was hiding from a group of retaliating drug dealers who had been robbed by her (now absconding) partner. The word in the drop-in was that these people were trying to find her and take their revenge on her. A visit by her to ‘Catfield’ for the follow-up interview would have been, in the words of her key worker (who was still in contact with her), ‘almost synonymous with suicide’.

The follow-up interviews lasted on average thirty-three minutes, slightly shorter than the initial ones. All of the seventeen follow-up interviews were recorded using the same audio digital recorder, after consent was obtained again from participants. Fifteen of these interviews were conducted in safe rooms at either ‘Catfield’ or ‘Hilltop’, one in an interview room at the University and the last one at the participant’s home.

The follow-up interview schedule (a copy of which can be found in Appendix 2 at page 250) was slightly different from the schedule for the initial interview. It started with questions aimed at documenting and explaining any changes in participants’ patterns of drug use (including the use of NPS) since the first interview. If no changes were reported, the reasons and circumstances for the stability of their drug use were sought.

Interviews with drug professionals

At the beginning of this research, I thought it would be sufficient to interview problem drug users in order to document and explain their use of NPS over time. However, as the data collection progressed, I realised that these interviews were helping me paint a detailed picture of their internal motivations (e.g. enjoyable effects of the drugs, curiosity, enhancement of social situations), and less of the external circumstances that potentially facilitated their use of these substances (e.g. price of the drugs, availability, legal status, drug markets dynamics). I therefore decided to supplement the data from the interviews with drug users with information obtained through in-depth interviews with drug professionals (for a similar approach, see Inciardi et al. 2009).

In total, I conducted eleven interviews with experienced practitioners in the field of substance misuse. Nine of these were conducted face-to-face, one via the telephone and the last one via Skype. Eight of the nine face-to-face interviews were conducted at the organisations where

these professionals worked and the remaining one in an office at the University of South Wales. Most of them took place in quiet rooms, but there were a few that were conducted in more unconventional settings. For instance, one was conducted inside the reception desk of a drugs project, and another one inside a needle-exchange office. Both of these took place during working hours and because of that, I had to pause the audio recorder whenever someone (usually a client) entered the room where the interview took place.

The remaining two interviews were conducted via the telephone and Skype, respectively. Financial and time restraints informed my decision to use these methods instead of the classical, face-to-face interviews, but also the fact that telephone and Skype interviews are now regarded as viable alternatives to the face-to-face ones, especially when the sample is made up of professionals. For instance, Bryman (2008) conducted semi-structured interviews with professionals via the telephone and concluded that these yielded data of similar quality with those conducted face-to-face. Additionally, Berg (2007:112) suggests that in-depth interviews conducted in 'synchronous environments' such as 'Skype' are similar to face-to-face interviews, and Markham (2008) argues that the benefits of using such methods of data-collection clearly outweigh the drawbacks.

These interviews lasted on average fifty-six minutes and all of them were digitally audio-recorded for the same practical reasons outlined earlier in the case of the drug users. Written consent for the recording was obtained from each of the drug professionals (please see Appendix 3 at page 251 for a copy of the Informed Consent form used for drug experts). In the case of those interviewed via telephone or Skype, written consent was obtained prior to the interview, via email.

The interview schedule in the case of drug experts (a copy of which can be found in Appendix 4 at page 253) explored the use of NPS by problem drug users, and the motivations and circumstances for the inclusion of NPS into the drug misuse patterns of this population. Additionally, it documented the impact of the use of such substances on the drug-service providers and their responses to this phenomenon. Lastly, questions were asked about the possible impact of the implementation of the incoming Psychoactive Substances' Bill on the patterns of drug misuse of problem drug users.

Microethnography

Apart from interviews with drug users and drug experts, data for the study were also gathered from my thirteen months of extended presence at 'Catfield'. During this period, I visited the

Centre two or three days a week, spending an average of six hours at ‘Catfield’ each day. In total, more than one hundred and fifty visits were made and just over nine hundred and seventy hours spent at the Centre.

Becker (1963:170) suggests that ‘To get an accurate and complete account of what addicts do ... [the researcher] must spend at least some time observing them in their ‘natural habitat’’. Similarly, Douglas (1972:4) maintains that ‘only by getting inside deviant groups and by experiencing things the way they do we can ever come to see how deviants really view the world’. The method that allows the researcher to collect data based on these principles is participant observation, also known as ethnography (Taylor, 1993). My presence at ‘Catfield’ was initially intended to be used solely as a recruiting strategy. However, after about a month I realised that while I was in the project’s drop-in area I was witnessing actions and conversations that increased my understanding of the issues I was studying. I therefore decided to record my observations at ‘Catfield’ and use the resulting data in the analysis.

This element of my research shares similarities with ethnographic studies, but unlike a pure ethnographer, I did not fully immerse myself into the world of the people I studied. Instead, I narrowed my focus to the drug users’ actions and conversations while they were at ‘Catfield’. Wolcott (1990) suggests that an appropriate label for this type of field-work could be ‘microethnography’.

‘Microethnography zeroes in on *particular* settings ... drawing on the ways that a cultural ethos is reflected in microcosm in selected aspects of everyday life, but giving emphasis to particular behaviours in particular settings rather than attempting to portray a whole cultural system’ (1990:64). He goes on to argue that microethnography is mostly associated with ‘hybrid and hyphenated ethnographers than [with] the ‘pure’ types’, which is indeed an accurate description of my stance on this occasion.

‘Catfield’ is a drug project with a history of more than thirty years, which caters for both drug users and alcoholics in the local area. The support provided through one-to-one or group sessions with specialised key workers is mainly harm-reduction oriented. Additionally, the Centre offers practical help with issues such as housing, benefits and legal matters, making it a popular venue within the hidden population I wanted to study. ‘Catfield’ also includes a needle-exchange desk and a very busy drop-in area frequented mainly by individuals who fitted my inclusion criteria. Fortunately, my gatekeeper in this organisation – Eric, allowed me unlimited access to it. All the staff members at ‘Catfield’ were made aware of my role as a researcher and I encouraged them to let any curious clients who asked about me know who I

was and the reason for my presence there. If anyone approached me directly, I always revealed my role as a research student who was allowed by the management of the project to sit in and try to recruit participants for my study. In fact, clarifying my role gave me the opportunity not only to advertise my study but also to possibly recruit a new participant.

My biggest fear when I first started going to 'Catfield' was that I would not be accepted by drug users and key workers, who were also instrumental in the recruiting process. Firstly, I was concerned that my knowledge and understanding of drug users' strong Welsh accent and slang was limited. However, I soon realised that playing for a local football team at weekends helped me a lot in comprehending a less conventional type of language and attuning my ear to the Welsh accent. As mentioned earlier, previous discussions with drug workers and managers while trying to secure access also benefitted me in this respect. Not least, I decided that I would dedicate my first few weeks spent there to improve this particular issue. With this purpose in mind, I took part in staff meetings, stood in group sessions with drug users and joined in other activities run by the centre such as days-out, 'survival skills' lessons and out-reach visits. All of these activities made me familiar enough with the language and slang used by drug users who frequented 'Catfield'.

Secondly, like Taylor (1993), I was concerned about whether my physical presence would be appropriate and therefore I had given much thought to my own 'impression management'. As Fontana and Frey (1994:367) point out: 'The decision of how to present oneself is very important, because after one's presentational self is 'cast' it leaves a profound impression on the respondents and has great influence on the success (or failure) of the study'. The dress style of the clients who came through the door of the project informed my own style as well. I never dressed smartly as I thought this would put people off from engaging with me. Therefore, whenever I went to 'Catfield' I always wore jeans, sweatshirts, T-shirts and trainers.

In order to increase my chances of being accepted, I also used two more 'unconventional' techniques that in the end proved to be effective. While negotiating access, a few key workers suggested a hot meal would be well received by clients and since one of my personal hobbies is cooking, I decided this would be a good way of trying to befriend them and make myself noticed. On a few occasions, I cooked two of my favourite dishes: a Spanish seafood and chicken paella and 'sarmale', a traditional Romanian food consisting of vine leaves stuffed with minced meat and roasted vegetables. Both were a real success with the clients and members of staff and often, those who tasted my food introduced me to other drug users as 'Marian, the guy who cooks the tastiest paella you'll ever try'.

The other less conventional method I used was always to carry with me a pack of cigarettes, tobacco rolls and a few lighters. The overwhelming majority of individuals who came to 'Catfield' were smokers as I was at the time, and asking potential interviewees whether they wanted to go out for a cigarette and a chat was a very effective 'ice-breaker'. In this way I was able to tell people more about why I was there, give them a few details about my study and ask them whether they were willing to help me with it. Of course, this does raise some ethical issues (Dwyer, 2009) that will be returned to later in the chapter.

The objects of my observations while I conducted the microethnography were problem drug users' and drug workers' actions and discussions while they were in Catfield's drop-in. During this time, I had the opportunity to listen to a variety of conversations between drug users themselves or between drug users and members of staff with regard to a wide range of issues around NPS. These discussions covered topics such as the effects of NPS, how they compared to traditional illicit drugs, the users' attitudes toward NPS, the harms produced by these substances, the market for NPS, and possible responses to the NPS problem, including legislation. At times, I joined in these conversations as well, in an attempt to probe some of the issues that interested me. With the same purpose in mind, I had numerous informal conversations with almost all of the Centre's clients and staff members, including nurses and other professionals who visited 'Catfield' while I was there. I was also able to observe problem drug users who came through the doors of 'Catfield' intoxicated to various degrees with NPS and thus witness the immediate physical and psychological effects of these drugs on this population of drug users. On these occasions, I had the opportunity to observe how drug workers at 'Catfield' and staff from other relevant services (e.g. police, ambulance staff) dealt with the situation, from the first aid administered to the harm-reduction advice provided afterward to the drug user.

I recorded my observations through detailed field-notes written in my research diary at the end of each visit to 'Catfield', which also included subjective opinions and contextual information (Neale et al., 2005). At the beginning, I tried to take notes in the drop-in Centre by writing in my diary and using my phone, but I soon realised that this was raising a few eyebrows from both drug users and drug workers. I did not want to do anything that would potentially inhibit those whom I was observing and consequently decided to write my notes elsewhere, after I left 'Catfield' for the day (Bryman, 2008).

The microethnography benefited me in a few distinct ways. Firstly, it allowed me to supplement the data from the interviews with drug users and drug experts and thus obtain a

more rounded picture of the phenomenon I studied. Secondly, it allowed me to build a rapport with potential participants before the interviews took place (Creswell, 2007). Thirdly, even though this was not my intention, inevitably my observations and conversations at ‘Catfield’ acted as a barometer by which to gauge the validity of the accounts that the participants (drug users and drug experts) provided me with during the interviews. Lastly, I also gained invaluable personal experience of a third sector drug agency operations in practice and this enabled me to increase my credibility as a substance misuse seminar leader, and also create useful contacts that I can use for further research and dissemination of the current research findings.

Analysing the data

During this research I conducted a total number of 54 interviews with both drug users and drug experts, which amounted to a total of 33.4 hours of audio-recorded conversations. On the advice of my supervisors, I listened and transcribed the interviews as soon as possible after they took place. The transcription process was lengthy and difficult, but it proved useful in several ways: it made me familiar with the data and it allowed me to begin identifying themes at an early stage, before the actual start of the formal data analysis.

In addition to the interviews, detailed observational field notes were also kept for each visit at ‘Catfield’ during the microethnography. The fact that I started to analyse the interview data from an early stage proved helpful when it came to the analysis of the observational field notes, which took place during the latter stages of the research. When I was conducting the microethnography I kept the themes that emerged from the interviews in mind and made field notes accordingly. However, that is not to say that I was narrow minded and only focused on information that supported the preliminary analysis that had been completed. As the data collection process unfolded, themes and ideas that had not previously been identified came to light. For example, that the channels through which problem drug users purchased mephedrone and synthetic cannabinoids (i.e. street dealers) played an important role in the initiation and continued use of these substances became apparent during the observations, eventually constituting an important finding.

The interview transcripts and the microethnography field notes were re-read several times in order to achieve an overall understanding of the emerging data (Holloway, 1997; Hycner, 1999) and then analysed to generate themes within the three key stages in someone’s use of drugs (i.e. initiation, continuation and stopping), and separately for mephedrone and synthetic cannabinoids.

The data analysis was performed using the qualitative approach of thematic analysis, described by Braun and Clarke (2006:79) as a technique employed for ‘identifying, analysing and reporting patterns (themes) within the data’. I chose this particular method because it is widely used in the analysis of qualitative data, especially interviews and field notes (Judger, 2016), and because it ‘can produce an insightful analysis that answers particular research questions’ (Braun and Clarke, 2006:97).

As previously indicated by Frith and Gleeson (2004), one of the ways in which themes can be identified within the data is to utilise an inductive, ‘bottom up’ approach, which I also used on this occasion. Thomas (2003) explains that the main objective of the inductive method is to enable research findings to emerge from the dominant themes inherent in the raw data, without the restraints imposed by structured methodologies which are a result of pre-defined concepts and theories. My decision to opt for an inductive approach was also informed by the novelty of the phenomenon of NPS use among problem drug users, which as seen in Chapter Four is a scarcely researched topic, that has not been explored thoroughly previously.

In order to organise the data more efficiently, the interview transcripts and field notes were first entered into the qualitative analysis software NVivo 10. Nodes were then generated in NVivo for each of the three stages in someone’s use of drugs (i.e. initiation, persistence and desistance), and text relevant to each of these stages were coded to them. I then printed off each of these nodes and continued the data analysis using the pen-and-paper technique, whereby themes were identified and then text relevant to those themes were coded to them using coloured highlighters. Subsequently, for each theme, all the text that was relevant to it was put together so that everything related to a theme was in the same place, making it easier for me to analyse it. Having used this combination of NVivo and traditional techniques allowed me not only to organise the large amount of data I had at hand efficiently, but also to still remain fully immersed in it while performing the analysis.

Ethical considerations

The University of South Wales’ Faculty of Business and Society Research Programmes Committee granted ethical approval for this project in 2013, and throughout the study adhered to the British Society of Criminology’s (2015) Statement of Ethics. An issue that I became aware of at the end of this study was the fact that the initial ethical application was not amended in order to identify and address specific issues related to the interviews with drug professionals. Indeed, interviewing this specific population might have raised some additional ethical considerations in areas such as drug experts’ data protection regulations. At the time, however,

I believed that most of the ethical issues with this research had already been addressed in the application to conduct the study among drug users, who are a more vulnerable type of participant than drug professionals. Fortunately, no additional ethical aspects emerged while interviewing drug experts. However, with the benefit of hindsight, if I was to do this research again, I would seek ethical approval as soon as I became aware that the research would expand to include additional and separate groups of participants.

Referring to researchers who choose to focus their attention on sensitive aspects of human life, such as substance misuse, Lee (1993:2) suggests that '[they] may need to be more acutely aware of their ethical responsibilities to research participants than would be the case with the study of a more innocuous topic'. Main areas of concern from an ethical point of view when studying drug users are issues around informed consent, harm to participants and researcher, and confidentiality (Punch, 1994). All of these emerged, albeit to various extents, while doing the current research. Most of the ethical issues I faced were related to the interviews with drug users and the microethnography, and it is mainly these that I address in detail below. While I had to deal with similar concerns in the case of the interviews with drug professionals, these were less challenging and at most overlapped with those encountered in the case of the other two data-collection methods.

Informed Consent

Generally, it is difficult, if not impossible to know whether consent to take part in a research project is genuinely informed in the case of all participants (Brookman, 2000). Nevertheless, the researcher has the duty to ensure that all the research subjects are made aware of the aims of the research, who conducted it, why it is being conducted, and what happens with the findings once the study has been concluded (British Society of Criminology, 2015). These issues need to be explained as thoroughly as possible and in terms meaningful to participants. To these ends, a consent form (a copy of which can be found in Appendix 5 at page 254) and an information sheet (to be found in Appendix 6 at page 255) were devised and presented to participants before the interviews. The consent form clearly indicated my role as a research student and explained the main topic of the interview. It stated the voluntary nature of the subject's participation and emphasized the right to withdraw from the study at any time for any reason. It also stressed that in accordance with the Data Protection Act 1998, the information provided may be held indefinitely. The accompanying information sheet set out the general aims of the research and the rationale and practicalities of the interviews. In an additional effort to ensure the consent given was informed, every interview began with a brief description of

myself, the study and the issues I intended to cover during the discussion. Additionally, at the end of each interview I reiterated the right of every participant to ask me any questions about the study or myself.

As far as the microethnography was concerned, it was practically impossible to let everyone who entered the doors of 'Catfield' know that I was a researcher and ask for their consent to be observed. However, I did not hide the fact that I was a research student and made every effort to let as many people as possible know the reason for my presence in the drop-in centre.

Avoiding harm to participants

I was aware from the start that most of the questions from the interview schedule could cause some distress to drug users. I was concerned that especially for those who were undergoing drug treatment of any kind, speaking to me about their drug use could have a negative effect on their treatment or recovery. However, I was constantly re-assured by drug workers that this would not constitute a major problem as drug users were always asked to speak about similar issues as part of their treatment or support programmes. At the start of each interview, I made sure the participant was comfortable with the topics I wanted to cover. Moreover, I tried to be as vigilant as possible to detect any signs of discomfort, and I made available to participants leaflets and contact details of specialist substance-misuse support services (Neale et al., 2005).

There were two instances when I had to end the interviews abruptly because I sensed the participants were negatively affected by our discussion. Archie's interview, for instance lasted only six minutes. The notes I made in my research diary that day provide the context in which this took place and why I decided to cut the interview short:

'29/04/2015 Catfield – Archie came in today to have his benefits sorted... I asked Jimmy [his key-worker] to ask him if he would want to help me [with my research]. Archie agreed and it was him who [approached me and] told me he's fine to have a chat with me if I wanted to. After about five minutes into the interview I realised something was wrong. Archie wasn't looking at me anymore and his voice was very low. I asked him whether he wanted us to stop the interview and he said, with a sign of relief, 'Yes!'. He told me he was trying to quit heroin and this discussion was reminding him of heroin, which he didn't like'.

Rewarding the participants

It is often the case that when doing research with drug users, the researchers pay the subjects a small sum of money as compensation for their time (Ritter et al., 2003; Moyle and Coombe, 2015). Nevertheless, I decided from the outset I would not use any financial incentive to attract participants. My concern was that the money may be used to purchase drugs and I was not

willing to risk the possibility that someone whom I interviewed might suffer an overdose or even die as a result (for a similar viewpoint, please see Buchanan et al., 2002 and Seddon, 2005). In hindsight, this decision probably increased the data-collection period by at least a few months, but it allowed me to sleep with a clean conscience.

The fact that I did not use a financial reward for participants did not mean that I did not try to compensate their kindness in agreeing to help me. While at 'Catfield', I got more and more involved in activities run by the Centre. For instance, I regularly assisted drug users with internet searches and IT problems and made phone calls on their behalf to various authorities. I provided support on immigration issues and acted as an interpreter for a few clients who could only speak Romanian, Italian, or Spanish. I got involved in as many outdoor activities as possible, and I assisted drug workers to home visits to clients with mobility problems. The list could go on, but suffice to say that 'Catfield' was asked by its insurance company to put me on their insurance policy because of the variety of activities I was involved in. I found this a much more constructive and reassuring way to compensate drug users and drug professionals for their participation in the research.

In order to increase my chances of recruiting participants or to maintain the rapport with those whom I had already interviewed, I used to carry with me at 'Catfield' cigarettes, tobacco rolls and lighters. Like in Dwyer's research, '[T]he exchange [of these items] formed a link that allowed for the possibility of a relationship' (2009:76). The shared act of smoking has the capacity to diffuse 'social and conversational boundaries' between people (Dennis, 2003:17). My perception was that offering cigarettes to participants, smoking with them and thus making them my conversational partners, allowed participants to grasp the genuine importance of their own contribution to my research. This could be regarded as problem from a health-related viewpoint, but as it is well documented elsewhere, most problem drug users are already heavy tobacco smokers (Brain et al., 1998; Parker and Bottomley, 1997) and thus the cigarettes I offered them had a low potential of inflicting additional and significant harm to their health.

Confidentiality

As already indicated earlier, each participant, person, organisation and/or location mentioned during the interviews and microethnography was given a pseudonym. Other potentially identifying information such as specific dates was also altered in order to protect participant confidentiality.

Through the consent form, all participants were ensured that confidentiality of their accounts would be kept at all times, except in two instances: if they mentioned something that showed a significant and previously undetected risk to themselves or others; and if they mentioned identifying details that could link them to a serious offence that had not previously been disclosed (Brookman, 2000). If that was the case, I informed participants that confidentiality would not be upheld and the information would be passed on to either their key worker or the police. Fortunately, I did not find myself in either situation during this research.

The researcher

Taylor (1993:17) stresses that '[O]ne aspect of research into the field of criminal involvement distinguishes it from most other areas: the element of risk to the researcher'. This risk though presents itself in a variety of forms, such as legal, health-related and personal.

Polsky (1969) warns that anyone doing fieldwork when researching drug misuse is likely to face some legal issues at some point, such as witnessing drug use or drug trafficking, or at least become aware of crimes that are unknown by the police. One of the actions I took to minimise these risks was not to immerse myself fully into the lives of the problem drug users I studied. Instead, I restricted my observations to the perimeter of 'Catfield', where the possibility of becoming embroiled in a drug-related or any other type of crime was limited.

One type of health-related risk likely to be experienced at different points by drug-misuse researchers is stress (Taylor, 1993). During the microethnography, I witnessed two heroin overdoses and a few very intense situations when clients came to 'Catfield' with serious suicidal thoughts. Fortunately, neither of those overdoses was fatal, and the suicidal clients were dealt with very professionally by drug workers, who helped them overcome their dark thoughts. Nevertheless, seeing someone so close to losing his or her life was an experience that will surely stay with me for a long time. These events also reminded me of the fragility of these men and women's lives, an aspect that is often overlooked by the public.

While conducting face-to-face interviews with drug users, researchers put themselves at risk, especially when participants are under the influence of drugs or are going through withdrawal. All but one interview was conducted in a safe location at the organisations where I recruited the participants, and on every occasion a drug worker was made aware that I was conducting an interview and asked to check regularly on us. Fortunately, I never felt any threat for my physical safety during the interviews. Moreover, I decided from the outset that I would not interview drug users who showed clear signs of intoxication or withdrawal symptoms to

minimize the chance of unpredictable behaviour that might result in harm either to myself or the interviewee. In this way I also avoided issues regarding gaining informed consent from persons who are intoxicated, which might have also been problematic (Aldridge and Charles, 2008; Measham and Moore, 2009).

Limitations

Any study has its limitations and this one is no exception. Firstly, the qualitative nature of the study meant that '[b]readth and scale [were] sacrificed in order to obtain a deeper and more contextualised understanding of people's lives and experiences' (Neale et al., 2005:1588). The relatively small sample I utilised on this occasion meant that the findings might not reflect the collective experience of problem drug users and drug professionals in the UK or even across Wales, and therefore are not 'suitable for empirical generalisation' (Neale et al., 2013:168). Despite its size, this sample did enable me to capture a diverse range of experiences, whilst also allowing differences between sub-groups of participants to be explored (Sexton et al., 2008).

Secondly, qualitative interviews are based on self-report data, which due to issues of recall or misrepresentation, have their reliability questioned (Neale et al., 2005). This is even more apparent when the interviewees are problem drug users (Anglin et al., 1993; Wright et al., 1998). In order to mitigate the recall concern, I mainly focused on discussing major changes in drug users' patterns of substance misuse, events that normally leave an important mark on peoples' memories. Similarly, the interview schedule in the case of drug experts included mainly questions related to the unexpected event of NPS use among the population of problem drug users, a phenomenon that at the time of the interviews was still fresh in their memories.

In the case of self-reported data, there is always the danger that, for a variety of reasons, interviewees might provide incomplete or inaccurate information. Researchers confronted with similar issues suggested that building a rapport with participants before the interview, or having someone to vouch for your trust, could be beneficial in terms of obtaining more accurate and honest accounts (Neale et al., 2005). Due to my extended presence there, in the case of most of the participants recruited from 'Catfield', I had already built a rapport before the actual interview took place. In the other cases, a trusted person had introduced me to the interviewee and I tried to build a rapport with him/her during the initial interview and then cultivate it, if possible, until the follow-up. To my pleasant surprise, drug users displayed remarkable consistency between factual information provided at the first interview and follow-up. Another tool I used, albeit involuntarily, to validate the information obtained through interviews, was

the microethnography. In this case, too, the data gathered from observations were consistent with those from interviews, which gives me reason to believe that participants' accounts were generally accurate.

Finally, the longitudinal design employed in the case of the interviews with drug users exposed this element of the research to the issue of 'attrition'. While I managed to conduct initial interviews with twenty-six drug users, only seventeen of those were followed-up. The loss of those nine participants had the potential to affect the validity of the results and could have made the data analysis more difficult. However, after comparing the follow-up sample with the sample of those who had been lost, I noted that they were almost identical in terms of the main characteristics of participants (i.e. age, sex, first drug of choice, length of problem drug use career). Considering this resemblance, it might be argued that the loss of a few similar participants might have had little effect on the results of this study.

Conclusion

This chapter has documented the various methodological procedures utilised in this research. The rationale for adopting a mixture of qualitative methods was considered, followed by a description of the difficult and lengthy process of securing access to participants for the study. Subsequently, the sampling procedures employed were outlined and this was followed by a detailed discussion about the data-collection methods used. The ethical considerations regarding the research were discussed next. The sensitive nature of the subject under study and the vulnerable participants meant that I had to take particular care when conducting this research, especially in order to avoid causing any harm to participants or myself. Finally, some of the weaknesses of this research were considered, along with the measures taken to limit their influence on the overall quality of the study. Despite these limitations, the depth of data obtained through the interviews with drug users, the microethnography and the interviews with drug professionals allowed me to provide a rounded picture of the use of NPS among this population of problem drug users from South Wales. The following three chapters present the results of the research. The first of these chapters focuses on initiation, the second on persistence and the third on desistance.

CHAPTER SIX - Initiation into NPS use

Introduction

Today there are more than 600 individual substances placed under the umbrella of new psychoactive substances (NPS) and their number continues to rise (EMCDDA and Europol, 2017). However, from this large group, the problem drug users from South Wales included in my study were only attracted to mephedrone and synthetic cannabinoids. The data gathered in this research does not allow for a thorough analysis of the reasons why only these two substances appealed to this population of problem drug users and why others did not. Nevertheless, a couple of observations about this issue can be made. Firstly, from the interviews and observations conducted it appears that mephedrone and synthetic cannabinoids were the first NPS to which these drug users had access. Secondly, the not always enjoyable experiences of using these substances and a perception that they are dangerous drugs might have prompted them to be more reluctant to experiment with further NPS that were indeed available on the market. This important finding informed the structure of the current and the following chapters, which will concentrate solely on these two substances: mephedrone and synthetic cannabinoids.

A common approach to understanding drug use is to look at the three different stages in someone's 'career' of drug use: the first ever use, the period of persistence in use, and the cessation of use (Faupel, 1991; Best et al., 2008a). This chapter focuses on the first of these stages, namely *the onset* in participants' use of mephedrone and synthetic cannabinoids, respectively. The other two stages: the *persistence* in, and the *desistance* from, the use of these NPS are addressed in the subsequent chapters.

The current chapter is divided into two main sections: the first one focuses on mephedrone, and the second one on synthetic cannabinoids. For each of these drugs, I initially focus on the context in which the first ever use happened. Subsequently, I identify and discuss the reasons why problem drug users took the decision to start using each of these NPS.

Initiation into mephedrone use

By far the most popular new psychoactive substance among the problem drug users I studied was mephedrone – a stimulant drug with effects similar to cocaine and 'ecstasy'. Without exception, all the drug users I interviewed had at least heard about this drug and the vast

majority (88%, n=23) had used it at some point in their lifetime. Almost half of those who used mephedrone reported that their use had become problematic (48%, n=11), almost a fifth (17%, n=4) were occasional/recreational users and just over a third (34%, n=8) only experimented with this substance a few times before deciding not to use it in the future.

Drug users rarely used the term ‘mephedrone’, and some were not even aware of this term. Instead, they preferred to utilise street-names like ‘meow’, ‘m-cat’ and ‘fert’. As exemplified by Paul and James in the quotations below, participants largely acknowledged that these terms were generic. It is therefore important to note that even though participants talked extensively about mephedrone, ‘meow’, or ‘m-cat’, in reality the substance they referred to might have been a different one.

‘[Let’s] say you go to your dealer to buy meow for nine months, every single day you’d walk out with something different.’ (Paul, 34 years, heroin user)

‘I was going there to buy meow, but it could have been anything.’ (James, 37 years, heroin user)

My sample of drug users did not include any individuals whose drug-using careers started with NPS. Instead, all the drug users interviewed in this study were active or former long-term users of illicit drugs such as heroin, cocaine, and/or amphetamine and therefore mephedrone was not the first drug they had ever taken (please see Table 6 below for details about participants’ first ever experience with any illegal drug and a ‘hard’ drug, respectively).

Table 6 – Participants’ age at the onset of first drug and first hard drug use

Pseudonym	First drug ever used	Age at first ever drug use	First hard drug used	Age at hard drug use
John	Cannabis	13	Heroin	15
Michael	Cannabis	14	Ketamine	20
Bill	Amphetamine	14	Amphetamine	14
Tom	Alcohol	Before 20	Heroin	50
Biggie	Unknown	Unknown	Heroin	30
Dean	Heroin	14	Heroin	14
Linda	Unknown	Unkown	Heroin	26
Josh	Cannabis	13	Cocaine	16
Rob	Alcohol+Cannabis	15	Amphetamine	26
Jane	Valium	21	Heroin	22

Pseudonym	First drug ever used	Age at first ever drug use	First hard drug used	Age at hard drug use
Rhys	Cannabis	13	Heroin	16
Ryan	Alcohol+Cannabis	15	Heroin	16
Megan	Benzodiazepines	Unknown	Heroin	38
James	Cannabis	20	Heroin	25
Diane	Alcohol	16	Heroin	27
Clint	Cannabis	16	Heroin	24
Adrian	Cannabis	16	Heroin	18
Paul	Amphetamine	18	Heroin	24
Archie	Cannabis	8	Heroin	21
Ian	Cannabis	14	Heroin	18
Angharad	Amphetamine	36	Heroin	39
Lawrence	Alcohol+Amphetamine	13	Heroin	16
Gary	Cannabis	16	Heroin	16
Rhiannon	Cannabis	15	Heroin	19
Gavin	Cannabis	13	Heroin	18
Vicky	Cannabis	12	Amphetamine	18

Note: For those participants where 'Unknown' is mentioned, data for that specific detail was not obtained.

Characteristics of mephedrone initiation

At the moment of their first ever use of mephedrone, all of the 23 participants who tried it were long-term users of another illicit drug. The vast majority (74%, n=17) were mainly heroin users, a sixth of them (17%, n=4) were mainly amphetamine users and two of them were mainly cocaine users. I used the word 'mainly' because even though these individuals had a primary drug of choice, they were without exception poly-drug users. This meant that these individuals' repertoires of drug use were not confined to their preferred illegal substance, but it contained a variety of other secondary ones as well. These included controlled substances such as cannabis, benzodiazepines (e.g. Valium/Diazepam, Termazepam), opiates (e.g. methadone, buprenorphine) and other medicines (e.g. Pregabalin and Gabapentin), but also legal ones such as alcohol and tobacco.

Method of first administration

In terms of the preferred administration route for their primary drug of choice (i.e. heroin, amphetamine or cocaine), the overwhelming majority of participants who ever tried mephedrone were intravenous drug users of either heroin or amphetamine (82%, n=19). The remaining four participants were either snorting cocaine or amphetamine (9%, n=2) or smoking heroin (9%, n=2). However, when questioned about how they consumed mephedrone for the first time, the same participants painted a more complex picture. Almost half of them (48%, n=11) first took mephedrone by snorting it, almost an equal number (43%, n=10) injected it, and the remaining ones (9%, n=2) ‘bombed’⁴ it.

The above figures suggest that when they consumed mephedrone for the first time, some drug users utilised the same administration method used for their primary drug of choice (e.g. those who were heroin injectors also injected mephedrone at their first use). However, others utilised a different route of administration. For instance, some intravenous users of heroin actually snorted mephedrone instead of injecting it at onset. Examples of each of these two groups are provided below.

Rhiannon, who was using heroin intravenously, reported that when she used mephedrone for the first time she injected it, and explained that she did this because this was how she normally consumed her preferred drug. She also stressed that she did not consider snorting mephedrone because she was not keen on that particular route of administration:

Marian: You started injecting it straight away?

Rhiannon: Yeah, straight away. I was injecting heroin so I just went on to inject meow.

Marian: Were you snorting it as well?

Rhiannon: No, never snorted it.

Marian: Why didn't you want to snort it?

Rhiannon: Uhm, it's horrible when you snort things, isn't it? I just never did.

Marian: So, you don't like the experience of it.

Rhiannon: No. I just injected it.' (Rhiannon, 39 years, heroin user)

Rob, who was a problem amphetamine and cocaine user who used to snort his preferred drug, utilised the same administration route when he used mephedrone for the first time. He explained that despite the popularity of mephedrone injecting, he remained loyal to his usual route of administration. He explained that he did that because he wanted his use of mephedrone to remain within a set of self-imposed boundaries. According to these boundaries, injecting a drug was going too far:

⁴ Wrapped in cigarette paper and swallowed or mixed with water or other liquids and swallowed (McElrath and van Hout, 2011:496).

'Marian: How did you try it initially?

Rob: The route of use?

Marian: Yeah.

Rob: I sniffed it. Lots of people started injecting in B..., [but] I didn't start injecting.

Marian: Why? You didn't inject anything else?

Rob: No, the only thing I've injected would be intramuscular, for steroids. But no other injection apart from that. It was, it was like a sort of barrier. I suppose I associated needles with it not being a fun thing anymore. Even if I was addicted, [I regarded injecting] as a worse addiction that I already had, I suppose.

Marian: It's very interesting to see what people associate injecting with. You said you didn't regard it as enjoyment anymore, you regarded it as a pure addiction.

Rob: As a pure addiction, something I had to do. As a lifestyle more than as a part of my life. It's a strange one. I've known amphetamine users who were injecting as well, but I never got into it. When I was young as well, amphetamine and heroin were both injected, but I've been warned off that as well when I was young. It's a strange way of thinking about it, but in a way I did class users and [put] boundaries in use as well.'
(Rob, 32 years, amphetamine user)

Clint, who was a problem intravenous user of amphetamine reported that given mephedrone's reputation of being cut with various adulterants, he regarded injecting the drug as a much safer option than snorting or swallowing it and this was why he chose this administration route:

'I only started taking meow when I was 36-37 [he is now 40]. I injected it straight away. I wasn't snorting it coz I've heard people used to put glass in it.' *(Clint, 40 years, amphetamine user)*

Other drug users, however, reported that despite being used to injecting drugs, they rejected the idea of using mephedrone intravenously. Jane, who was a problem intranasal user of cocaine when she first tried mephedrone, but who also had a previous history of ten years of intravenous use of heroin, remembered that snorting was the first and only administration route she ever used for mephedrone. She explained that she took this decision because of the alleged adulterants with which mephedrone was cut, and because she did not enjoy the effects of the mephedrone enough to progress to injecting it:

'Marian: How did you take meow the first time?

Jane: [S]norted, I have.

Marian: Did you inject it?

Jane: No. Never, no! I would never inject meow. I was a heavy user of heroin so I did do it like that many years ago. But meow, I would never dream of [injecting it].

Marian: Why would you not?

Jane: 'Cause I don't know. I've heard so many bad things about it that I would never put it [in my veins]. It's bad enough when you sniff it, what it does to your nose, what it does to your insides. You never know what it could do to your veins. No, I would never contemplate injecting it. Plus, I wasn't that desperate on the drug anyway, you know?'
(Jane, 42 years, cocaine user)

Similarly, Dean – a current heroin injector, reported that despite consuming his primary drug of choice intravenously, he snorted mephedrone at onset and for the next few times when he used it, because he regarded injecting mephedrone as being too risky:

M: Have you tried meow?

D: I have tried meow once. Well, maybe not just once. A few times.

M: How did you take it?

D: I sniffed it, but I don't get why would people want to inject something [like] that. It's too dangerous.' (Dean, 32 years, heroin user)

Location of first use

In terms of the location where the first experience with mephedrone occurred, most participants (78%, n=18) reported that this took place in their own home or at a friend's house, while one remembered that this happened in a club, one in a car park and one in prison. For the remaining two, this information was not obtained.

For this sample of problem drug users, their drug-using friends played an important role in terms of their first experience with mephedrone. When questioned about the situational circumstances in which the first use of mephedrone took place, the overwhelming majority of participants reported that this happened in the company of their drug using friends:

'Ryan: Then I went into prison, [and] I came out in 2012, 2013. I've never even heard of meow. After I left the prison, I stayed alright for a couple of days, then I met my brother's ex-girlfriend who took me down this flat and they were all injecting something. I said: 'What's that?' And they said: 'Meow.' And I said: 'What's it like? Heroin? Can it kill you, overdose and that?' They said: 'No.' So I tried some with them and I just got addicted to it from there.' (Ryan, 24 years, heroin user)

'Marian: Tell me about when, when did you first [try meow]?

John: That m-cat? Meow-meow?

Marian: Yes, meow-meow, yeah.

J: I'd [pause] before I went to jail I've, say six years ago, I remember my mate coming [to] my house with this 'meow-meow', just a white powder. It smelled like, like cat's pee.

M: Hmm.

J: He crushed it up, we've snorted it and I felt, it felt nice, I felt a bit, you know, euphoric and intense.' (John, 33 years, heroin user)

Source of mephedrone at initiation

Most of the participants reported that they did not have to buy the mephedrone when they first used it because friends had offered it to them. Gavin and Michael, who were both long-term heroin users indicated that one of their friends was the person who provided them with the first dose of 'meow', for free:

'Marian: Can you remember when you've tried meow? The first time?

Gavin: Uhh, about three years ago. Three to four years ago [2011-2012].

Marian: Can you remember the circumstances? How did you come across it?

Gavin: My mate said: 'Have a go at it, have a try [to] see what you think of it'. It wasn't my cup of tea, you know? I've tried it once and that was it. I didn't like it.' (Gavin, 52 years, heroin user)

'Marian: How did you start using m-cat?

Michael: I had a friend [who] was using it and he gave [some to] me once. He said: 'Try this, mate'. It's like going in a pub, when your mate offers you a shot of Jaggermeister or anything like that: 'Hey, mate, have this!' You can't refuse, can you?' (Michael, 32 years, heroin user)

In the following section I move on to identify and discuss the reasons behind the participants' initial decision to use mephedrone. This topic was addressed during interviews with both drug users and drug experts and their accounts are presented below.

Motivations for mephedrone initiation

When asked to look at the decision to use mephedrone for the first time, the drug users and drug experts interviewed in this research identified a few recurrent explanations. Some of these were related to drug policies, drug markets circumstances and dynamics, while others were related to curiosity, peers' influence, and a preference for a certain administration route. Each of these are discussed in more detail below.

Legal status of mephedrone

The drug users explained that mephedrone was not an attractive drug prior to its criminalisation as a Class B drug under the Misuse of Drugs Act 1971 in April 2010. For Rob, for instance, the change in mephedrone's legal status turned it into an interesting substance:

'In the area that I was in, once it became illegal, it became like a real drug then. Instead of it being: 'Oh, something that you could just buy from a shop', it became an illegal drug and it definitely attracted me more once it became illegal.' (Rob, 32 years, amphetamine user)

Adrian, a long-term heroin injector, followed-up on Rob's point above and explained that taking an illegal drug as opposed to a legal one, adds to the overall experience of using that substance, and this was a recurrent explanation among other drug users as well.

'I started doing meow a year ago. I wouldn't be using it if it was legal ... With some people, because it's legal it's unappealing. As soon as it becomes illegal, it's like that extra buzz of doing something illegal. And all of the sudden it's desirable.' (Adrian, 28 years, heroin user)

Lawrence, another long-term heroin injector, also explained that he started using mephedrone only after it became illegal because he thought the legal drugs would not be as potent as their illegal counterparts:

'Marian: So, tell me when did you start using it [the mephedrone]?'

Lawrence: I only tried meow, m-cat after it became illegal because I was under the impression that 'legal highs' were not as good as the illegal drugs.' (Lawrence, 34 years, heroin user)

In consonance with drug users' opinion, the drug experts also indicated that the change in the legal status of mephedrone from a legal to an illegal substance made it more appealing to problem drug users. This point was clearly made by Phil, a drug service manager, who, like Lawrence above, explained that drug users believed that only the illegal drugs were strong enough to merit their attention:

'... until it became illegal, heavy-end users had no interest in it at all. When it did become illegal, there was sort of a light-bulb moment: 'Ok, there must be something in this stuff.' And that's why they started experimenting [with mephedrone]. I think the fact that it was suddenly made illegal, actually made people aware that these substances do have some sort of effect, otherwise the government wouldn't have legislated [it]. I think it was that sort of attitude, yeah. I think when they were on the market as 'bath salts', people were thinking 'Because it's legal, it's not gonna be effective'. Until, like I said, the government started to legislate against it. I think you can actually set your clock by it.' (Phil, drug service manager)

Alison, an experienced NHS nurse made a similar point by stressing that criminalizing drugs only makes people more interested in experimenting with them:

'[T]he moment you begin to talk about a drug in a negative light, it seems to me that all you do is encourage people to go and use it. The more we make things illegal, all that happens is we encourage people to go out and try it. I never found that any of the work that we do, when you tell people not to do something, ever works.' (Alison, NHS nurse)

Heroin shortage

Drug users widely agreed though that it was not until the second half of 2012 and the beginning of 2013 that mephedrone really became popular. From the entire population of problem drug users I interviewed (which included heroin, amphetamine and cocaine users), the long-term heroin users were those who were most attracted to mephedrone. From those participants who ever tried mephedrone, almost three quarters (74%, n=17) were long-term heroin users when they started using this NPS.

Drug users explained that the rise in mephedrone's popularity coincided with an unprecedented heroin drought that hit the South Wales area between 2012 and 2013. Paul, who at the time was a heroin dealer, describes this exceptional shortage:

*'There was a massive drought in 2012. There were various things going on around that [time]. I can remember because I was still dealing at the time and we were calling in contacts from Liverpool, Manchester, Newcastle, a couple of boys in Glasgow, in Edinburgh, Aberdeen just to try and get some decent gear. We were prepared to fly up there and drive back, or London, Southampton. F***, wherever, anywhere that we had contacts to get gear, it was all the same.'* (Paul, 34 years, heroin user)

Rhiannon also underlined that she had never experienced a similar drought in her 19 years of heroin use:

'Marian: You said that you moved to meow because heroin was short on the market. Did something similar happen in the past? A similar drought?

Rhiannon: No, definitely not. I mean you'd go through some dry patches, but nothing like that happened. It was just [pause] nobody had heroin, nobody was using heroin. It was all meow.' (Rhiannon, 39 years, heroin user)

Drug experts also reported that despite becoming attractive after its criminalisation, mephedrone did not constitute a problem within the population of problem drug users until 2012-2013. David, a drug worker, and Anthony, a drug service manager, offered their view on the exceptional shortage of heroin that happened then:

'And then, about maybe a year and a half ago, I don't know the exact timescale, around 2013, we saw this massive influx of meow. Everyone was using it, at least that's what we heard. It was chaotic, it was absolutely mental. The heroin use dropped completely. It was hardly any, like, we didn't see it. But the reasons why we were told, I think there was a catalogue of events. There was a problem, supposedly, with getting heroin into Britain. There was something about availability, something about the poppy seeds in Afghanistan. Something like that had happened, so there wasn't so much of heroin available.' (David, drug worker)

'I think the other factor that was really important was the heroin drought [of 2012-2013]. You had these factors. You had the first time ever when you got that. I mean, you always have droughts, when people don't have places to score, but this was right across the UK and Ireland when it was just no heroin around for a considerable period of time: a month or more.' (Anthony, drug service manager)

Poor quality of heroin

Paul explained that as a consequence of the drought, the only available heroin at the time was of very poor quality:

'You could get gear, but the percentage of purity was in single figures. My friend M got busted and he got down with a hefty amount and he'd been selling this stuff, the same stuff for a good eight-ten weeks when he got busted. And he was in the paper and the quality was noted by the arresting officer. I think it was something like eight percent purity. Even the arresting officer in court made a comment on how low the quality was.'

He said: 'I'm surprised that: A) he was selling this as heroin, and B) I'm surprised that people were buying it as heroin' because the quality was so low... But that's just what [it] was about at the time.' (Paul, 34 years, heroin user)

Other participants, like Lawrence and Tom, supported Paul's comments about the poor quality of the already scarcely available heroin:

'Heroin used to be good, but it seemed to have dried out then. [And] you couldn't get it from anywhere. That's when meow took off, I suppose.' (Lawrence, 34 years, heroin user)

'And as the strength of the heroin was so poor that, you know, wanting. I didn't take that much anyway, but even then, I was getting even less of an effect of not getting much anyway. And the percentage of heroin in the bag was like five percent or something. It was even less than that, maybe. It was poor.' (Tom, 55 years, heroin user)

Disillusionment with traditional drugs

Drug experts largely agreed with the drug users that in addition to the low availability of heroin, or perhaps because of it, the quality of the heroin that was still available on the streets around the South Wales area was poor. In this context, participants emphasized a long-term disillusionment among problem drug users with regard to the quality of the drugs they were buying, a feeling that was accentuated even more in the context of the low availability of these substances.

'We focused on mephedrone a lot then. They didn't really have an issue in N/Wales, but in South, South-West Wales, there was a big thing. Swansea, Llanelli, [in] that kind of area [it] was quite massive... This was back two years ago.

M: Can you link this to anything else? Did anything happen?

R: I think it was just to do with [pause] there wasn't fantastic heroin out there at the time, so obviously, they were paying for their heroin and not getting the feeling they wanted from it.' (Caryl, drug policy)

'But we kind of knew that when you looked at the general purity levels across South Wales, on seizures, South Wales notoriously on opiates, cocaine, those kind of things, were very poor, notoriously. That's when we started to see then the changes. People were fed up of having poor quality drugs. But, when it came to the point that the illicit street drugs became so bad, so poor, then there was that definite need that: 'I'm fed up, I'm gonna need to find something, an alternative that works'. And hence that's what kind of pushed then people to use this substance [mephedrone].' (Eric, drug service manager)

Low availability of heroin substitutes

Drug users explained that when similar shortages of heroin happened in the past, they would try to supplement their drug use with opioids such as methadone, Subutex and Suboxone, which are prescribed to those in heroin substitution treatments. However, so severe was the heroin

drought in 2012-2013 in South Wales that even these drugs became scarce on the market. Paul explains how difficult it was back then to source any of these alternatives to heroin:

'Even methadone, even that was difficult to get. Because of people's scripts, you know? The only people who'd get meth[adone] prescription were those who were on gear and they were going through the same drought. So they weren't selling off their little whatever it was.' (Paul, 34 years, heroin user)

Moreover, Rhiannon, who at that time was also a daily heroin user, recalls that buying methadone or dihydrocodeine as replacements for heroin was almost impossible because the procedures of ingesting these substitutes (i.e. under supervision) became stricter than they used to be in the past:

'Marian: In the past, how would you cope with a dry period? Would you go for methadone?

Rhiannon: Yeah, you'd do anything. I've even taken a strip of Co-Codamol or two strips of Co-Codamol to just try and help, you know, with the withdrawals. Or I'd go and buy, buy somebody's script off them: either methadone or dihydrocodeine.

Marian: So, in 2012 you didn't have that choice anymore? You couldn't buy any?

Rhiannon: No, nobody had any. Nobody had any so nobody was using it.

Marian: And neither those replacements that you told me about?

Rhiannon: No. Over the years, scripts have got a lot harder. Everybody was on their daily pick-up and they had to take it in the chemist's. So, being able to buy a script was almost impossible.' (Rhiannon, 39 years, heroin user)

The drug experts also recalled that the difficulties problem drug users experienced when trying to get access to opioid substitution treatments played a role in these individuals' decision to try mephedrone. David, a drug worker, and Daisy, a needle-exchange service coordinator, both revealed that getting enrolled on such a treatment was a lengthy process in South Wales and therefore this option was not available during the heroin drought.

*'[Opiate substitution] scripting was difficult to get if you were a single man in Swansea. So, there wasn't so much of heroin available, scripting was really hard. It was not like in England where you go in and just say 'I wanna be scripted' and you'll be scripted straight away, in about a week. It's gonna take like a year here [in Wales] so if you're not on a script and you can't get heroin you're f***ed, like.'* (David, drug worker)

'We're not known for quick access into treatment here [in Wales]. It's not like you basically can get on a prescription in a fortnight. So, when people suddenly found this magic cure, just like diet, this miracle cure, everyone wanted to try it.' (Daisy, needle exchange coordinator)

Due to heroin's low availability and poor quality and the difficulties in sourcing traditional substitutes such as methadone or other prescribed opiates, participants reported that they had no other choice but to look for a viable alternative. For instance, Eric the manager at 'Catfield' explained that in his view, heroin users were forced into trying not just mephedrone, but also any other available NPS:

'I think sometimes their hand is forced so they have to deviate to NPS use [because of such factors as] availability, the quality of drugs. So, sometimes their hand is forced to use other substances because that choice isn't there. Given the choice, opiates or NPS, I think most of them would say: 'NPS? No, I'd go [for an] opiate.' (Eric, drug service manager)

Availability of mephedrone

The drug users explained that during that period when heroin and its opioid substitutes were non-existent on the market or, at best, very difficult to source, mephedrone was readily available. James, Rhiannon, and Jane who all had a history of problem use of mephedrone described the availability of this drug when they decided to start using it:

'It was there and that's why I basically did it.' (James, 37 years, heroin user)

'[Mephedrone] became more available. Everyone had it.' (Rhiannon, 39 years, heroin user)

'It's everywhere meow. It's easier to get than heroin. Yeah, it was everywhere.' (Jane, 42 years, cocaine user)

Most of the drug experts I interviewed stressed that it was not the availability of mephedrone itself that contributed to problem drug users starting to experiment with this substance, but the fact that it was sold by street dealers. Cliff, a nurse I had an informal conversation with while conducting the microethnography at Catfield, was convinced about this:

'I'm sure that mephedrone entered the repertoires of heavy-end users when it became sold on the streets by dealers rather than in the shops or on the internet. I'm sure [about] this because we didn't have a problem with meow within this population before.' (field notes, Catfield, 26/05/2015)

A similar point was made by Anthony, who linked the distribution of mephedrone by street dealers to this substance's illegal status:

'I came across this as well. As soon as mephedrone became illegal, street-dealers got their hands on it and started selling it. And maybe that's one of the reasons why heroin users got access to it.' (Anthony, drug service manager)

The drug users I interviewed in this research supported these drug experts' opinions. All those participants who were buying mephedrone reported they used to buy it from a street-dealer. Nevertheless, participants painted a rather complex picture with regard to who exactly were these individuals who were selling mephedrone, an issue to which I turn to next.

'Meow' dealers vs. traditional dealers

Like the majority of drug users I interviewed, Michael, a current heroin and mephedrone user and also a current crack-cocaine dealer, explained that the persons selling 'meow' were totally different from dealers of traditional illicit drugs such as heroin, 'crack' cocaine and amphetamine:

'No, [those who were selling mephedrone were] other dealers, completely different. I mean, some dealers would do crack and heroin together. Obviously, because many people like those two drugs. But no, people in my circle, they will stick to one drug, or maybe two. So [they were] different dealers.' (Michael, 32 years, heroin user)

An explanation for the traditional dealers' lack of involvement in the sale of mephedrone was provided by Paul, an ex-heroin dealer himself. He explained that dealing in mephedrone was as risky as dealing heroin, but the profits to be made from selling 'meow' were considerably lower than those from selling heroin.

'Marian: I thought it was more logical for the heroin dealers [to] have seized the market.

Paul: Yeah, you'd think so, but the profits were considerably lower, and the risk was still the same. So, they wouldn't do it. I think that further up the chain, undoubtedly, it's the same people who are distributing huge quantities of mephedrone that are also controlling huge quantities of heroin through their hands. It's all the same people that are so far up. But I think it was mostly people from the outside [of the heroin market who started selling mephedrone].' (Paul, 34 years, heroin user)

The interviews with drug users and drug experts surfaced the existence of a competition between dealers of traditional illicit drugs and the new 'meow' dealers, who were both fighting for the same clients. Participants recalled that these tensions between the two sets of dealers were sometimes beneficial for the drug users in that they were benefitting from much better 'deals' from their suppliers. This is described below by Lawrence, a current heroin user:

'That's why heroin quality got better. Because heroin dealers realised they might be losing [their] business to meow dealers. They're trying to get their business back. The best way to get your business back is to make heroin better, stronger, or get them bigger amounts.' (Lawrence, 34 years, heroin user)

Participants also reported that the two competing sides used to spread opposing messages in order to keep their share of clients or attract new ones. On one hand, the mephedrone dealers used the stigma attached to heroin as a means of promoting their product. Paul, the same ex-heroin user and dealer mentioned earlier provided a few examples of this type of messages:

*'[Meow dealers were saying:] Aren't you tired of people saying you're a f***ing junkie'? Here is the alternative.' It's a lot cheaper, ten times cheaper or whatever, it's new, it's pure, it's safe, it's legal. And things like that.'* (Paul, 34 years, heroin user)

On the other hand, dealers of traditional illicit drugs were trying to convince their clients not to use mephedrone and interestingly, they were using the same rhetoric utilised by UK authorities in their attempt to prevent people from consuming NPS. Specifically, they expressed their concern at prospective users' willingness to experiment with a totally new, 'man-made chemical' substance, whose real contents and long-term effects were completely unknown at the time:

'Rob: I think it's not just a Government propaganda. I think there's a dealers' campaign, propaganda [as well].

Marian: So, what would dealers say?

Rob: [They would say that mephedrone] is a dirty drug, you don't want to be doing it, it's bad for you, no one knows what's gonna happen. The same things [as the Government].' (Rob, 32 years, amphetamine user)

Traditional dealers selling mephedrone

However, other drug users reported that traditional illicit drug dealers were those who were distributing mephedrone. Rhiannon, an ex-problem user of heroin explained that her heroin dealer introduced her to mephedrone:

'He [my heroin dealer] told me: 'There's no heroin out there but, why don't you try this [meow] instead?'' (Rhiannon, 39 years, heroin user)

Similarly, Daisy, a needle-exchange coordinator argued that mephedrone could not have become so popular within the population of problem drug users unless it had been promoted and sold by the existing network of dealers of traditional illicit drugs. But she also suggested that initially, traditional dealers were reluctant to sell 'meow' due to the smaller profits to be gained from it. However, under the threat of losing out customers and in the context of an increase in its price and thus profitability, traditional dealers decided to add mephedrone on the 'menu' of substances they were selling:

'I think it's definitely possible [for the heroin dealers to sell mephedrone] because that's the only way I can think in my head how it became [available] so quickly. But it was so cheap, I can't see massively that money was originally a big thing. But obviously, as time went on, it got less cheaper and it evened-out the average rate [of profit] of any substance, really.' (Daisy, needle-exchange coordinator)

Phil, the manager of a drug project, and Kevin, a key worker at Catfield, also described a fluid drug market, in which drug dealers permanently adapted to new circumstances by altering their services in order to respond to customer needs:

'I think initially there were separate markets, but I think since it [the mephedrone] became illegal, I think they are sort of combined now.' (Phil, drug-service manager)

'I think [that] before, when it [mephedrone] first came out, there were a lot of 'just-meow' dealers. Now I'm pretty sure that a lot of the heroin [dealers] are involved in it as well. They've been doing a little bit [of meow dealing] for quite a while.' (Kevin, key worker)

The Media

Even though drug users did not identify the influence of the media as one of the reasons why they started using mephedrone, this was a recurrent theme in the interviews with drug experts. These participants insisted that mephedrone's constant presence in the news at that time made problem drug users aware of this new drug. Drug experts were particularly concerned that the media's portrayal of mephedrone as a dangerous drug made problem drug users attracted to this substance:

'Eric: Media attention had a lot to do with it! We knew for a long time that a lot of people have been using this mephedrone, but to our service users themselves, they weren't really interested. Until that kind of appeared in the media.' (Eric, drug service manager)

'David: [Mephedrone] used to be available before. I remember I was going to festivals when I was younger and you could buy legal highs then. I don't know what happened up to this point, but the thing [was] that there were national news about it. I knew people from like England who used to take even before it came down here. People used to call it 'bubble' down there. And then, slowly through the news it sled down here [in South Wales]. And whereas scare tactics would normally make people like: 'Whoo, bloody hell, I won't take that', I suppose with drug use, what it does: 'Hmm, cool, excellent. How can I get it, like?'' (David, drug worker)

It is not clear from the data available here why this difference exists between drug users' and drug experts' accounts regarding the role of the media in mephedrone initiation. One possible explanation may be due to users having less exposure to media messages and therefore less likely to be influenced by them.

Curiosity

One of the most often cited explanations for the onset of mephedrone use within the population of problem drug users I interviewed was 'curiosity'. Participants explained that they were

curious about mephedrone because of its novelty, which they found exciting. This is how Gavin, a 52 year old long-term heroin user, explained his curiosity to try mephedrone:

'When that first came in, it was a new craze it was. We all wanted to try it, to see what it was like, to see what it's about. And then, it went from there.' (Gavin, 52 years, heroin user)

Dean, who reported that he was always curious to try new drugs so that he could be able to say that he experimented with that substance, made a similar point. In his own words:

'I had to try this new one to see how it is. Because I'm curious, and I want to be able to say I've been there, done that.' (Dean, 32 years, heroin user)

Peers' reports on mephedrone's pain relief attributes

The drug experts interviewed in this research agreed that for long-term heroin users, avoiding the heroin withdrawal was particularly significant. David, who was a drug worker at the moment of the interview, but who used to be a heroin user himself, explained the importance of this aspect:

*'There's a massive thing amongst drug users that withdrawing from heroin is this big f***ing thing, it's almost kind of mythical, you know: the cluck, the cluck, the cluck. It's embedded within the kind of drug users' culture down here that it is bad. 'Oh, I can't, I can't cluck.'* (David, drug worker)

Alison, the NHS nurse, went even further, suggesting that the entire existence of a heroin user revolves around avoiding the withdrawal symptoms.

'[F]or a heroin user, that's the aim of your entire existence: to stop you from withdrawing. That is why I need to get this drug: 'I need to stop withdrawing'' (Alison, NHS nurse)

In the context of the drought described earlier, the problem users of heroin, who were not able to source their drug of choice or a prescription substitute anymore, started to experience these symptoms more often. Against this backdrop, drug experts remembered that rumours started to circulate among this population that mephedrone was able to alleviate the pains and aches caused by the heroin withdrawal symptoms:

'[W]ord quickly got round that if you took mephedrone, the cluck went away. And [also about] the fact that they weren't withdrawing from heroin and they didn't have any of the unpleasant side effects of withdrawal.' (Alison, NHS nurse)

'This drug came along and maybe they were saying: 'Oh yeah, It stops you from clucking.' And rumours like that spread like wild fire: 'Oh, it stops me from clucking.'

That probably spread up and people thought: 'Oh, whatever, I'll take it then.' (David, drug worker)

'So, a lot of opiate users were actually switching to the meow use because, according to them, it got them off the heroin. And so, that actually took over as their main drug of choice for a lot of people and that [mephedrone] took over from the opiates. It appeared that there wasn't anyone that wasn't taking it.' (Daisy, needle exchange coordinator)

The drug users I interviewed also supported this hypothesis and reported that they tried mephedrone because they wanted to see on themselves whether this new drug could indeed be used as a pain relief in the case of a 'heroin cluck':

'Everyone was doing their cluck [from heroin] off the meow. I gave it a go.' (Ryan, 24 years, heroin user)

'I thought about it because people have used it to get off heroin.' (Adrian, 28 years, heroin user)

'Out of my circle of friends I was the last one who started using meow. I liked my heroin. But then people would say that it takes the withdrawals, you don't get the withdrawals from the heroin. And so that's why I really swapped over.' (Rhiannon, 39 years, heroin user)

Peers' reports on mephedrone's pleasant effect

A few participants reported they tried mephedrone because they heard its effects were more intense than those produced by traditional illicit drugs such as heroin, cocaine or amphetamine. As we saw earlier, the quality of these drugs in South Wales generated a long-term disillusionment among problem drug users living in this area, and therefore having access to a reportedly more potent drug constituted an incentive for people to start experimenting with it. This is how Paul and Clint explained their decision to experiment with mephedrone:

'I was told the effects were similar if not more intense, quicker than heroin. So I just tried it.' (Paul, 34 years, heroin user)

'Someone mentioned it. People were talking about it being like speed [amphetamine] but better because it was a better rush, but it didn't last long. So, I tried it and I liked it.' (Clint, 40 years, amphetamine user)

Witnessing mephedrone's pleasant effect on peers

Other participants explained that they witnessed the effects of mephedrone on others and wanted to see what it would be like if they tried it themselves:

*'Marian: So, when you decided to move to meow, you took this decision because?
James: Because I'm stupid, hahahaha! It was there at the time, the boys were enjoying it and I said 'I'll have a little go at that.'* (James, 37 years, heroin user)

'My brother was taking it in front of me and I used to see how he was on it. Then I started doing it [too] and carried on from there.' (Ryan, 24 years, heroin user)

Everyone else was doing it

The fact that everyone else around them was using mephedrone also influenced participants to take the decision to start using this drug themselves. Rhiannon, for instance, explains that when she first heard news about this drug when it was still legal, she never thought she would end up using it. However, because later on all of her friends started doing it, she felt it was alright for her to use it too.

'Rhiannon: In my circle of friends, we all gradually ended up using it. We'd all go to a house together, stay up all night together and do stupid things together. And I think that was a factor as well. Because everyone else was doing it, I thought: 'Ah, that's okay because everyone else is doing it. So, it's alright for me to do it [too].'

Marian: So you found a justification.

Rhiannon: Yeah. There was a time when my cousin had a problem. She was going out in the weekends and just doing it on the weekends. This was when it was like in the news, you know? That 'cat food'.

Marian: So around 2010..

Rhiannon: Yeah. And I'd be like: 'Oh, I'd never touch that stuff!', you know? And then I ended up injecting it...' (Rhiannon, 39 years, heroin user)

Ryan, who remembered that seeing everyone else in his group of friends using mephedrone facilitated his first experience with this drug, made a similar point:

'And all my other mates were doing it. So, I thought: 'Join in!'' (Ryan, 24 years, heroin user)

Preference for a particular administration method

Some drug users who were long-term intravenous users, reported that they started using mephedrone because it was an injectable substance, like their primary drug of choice. Rhys, for instance, a problem user of amphetamine who also had a long history of injecting heroin, explained that the fact that mephedrone was an injectable drug was the main reason why problem intravenous users started using it:

'Marian: Why would people who, like you, are so loyal to their group of substances that they use, why would they adopt this meow?

Rhys: I think it has to do with the hitting up [injecting]. It's the rush. If it wasn't injectable, people wouldn't even be doing it.' (Rhys, 42 years, amphetamine user)

Lawrence followed up on the point made by Rhys and suggested that for some intravenous users, the ritual of injecting is as important as the addiction to the substance itself:

'Marian: Why did you start using it [mephedrone]?'

Lawrence: You're injecting it and it's the same routine and ritual.' (Lawrence, 34 years, heroin user)

Paul, the former heroin user who also used to be a prolific dealer, explained how the 'needle fever' or 'pin fever' (i.e. the addiction to the ritual of injecting rather than to the drug itself) also played a part in drug users' decision to start using mephedrone:

'Paul: I don't know anyone who didn't have a history of IV use that went to inject meow. Everyone I knew that was injecting meow has injected before.

Marian: So it wasn't a problem for them anymore.

Paul: Yeah, they've settled that. It comes with many other stuff as well, like the 'needle fever', being addicted to the actual process of injecting. I know friends that couldn't get heroin so they'd inject water into their arms just to get that rush' (Paul, 34 years, heroin user)

However, this addiction to the actual ritual of taking drugs was not confined to the intravenous users. Rob, who was one of the few drug users I interviewed who did not use injecting as a way to administer drugs, talked about the existence of a 'snorting/sniffing fever', similar to the 'pin/needle fever' described earlier. He explained that he developed an addiction to the actual process of snorting mephedrone, even though not everything involved in it was pleasant:

'Marian: Many people told me they had the pin fever. But some told me about the snort fever, with that hit, that pain in your nose.

Rob: In your nose, yeah. I quite liked that bit. You don't get it from cocaine. When I was binning [snorting] cocaine, the first few lines you don't feel anything anyway. But I was feeling that with mephedrone. When I tried to move from snorting to bombing [mephedrone], I wasn't having any of it. I was doing myself bombs and they were getting just bigger and bigger and I got to a point when I just started snorting again. I felt better snorting it, with all that pain in my nose. Despite the pain, I felt better about using it that way.

Marian: The ritual?

Rob: I think the ritual comes into it a lot. Yeah, the ritual. How the ritual becomes so entrenched to those parts of the use, I don't know. With mephedrone, I'd bang it up my nose. I'd put it in my nose and it burned. I could feel it burning. And also, it tasted foul. But in a way, after an amount of time I wanted it to be, I wanted it to taste foul, otherwise I didn't think it was what I wanted. So I understand. The disgusting taste and the burning sensation became a part of the hit for me as well.' (Rob, 32 years, amphetamine user)

No stigma attached to mephedrone

Finally, when they were asked to explain why they started using mephedrone, some drug users indicated that they did this because unlike heroin, 'crack' cocaine, or amphetamine, there was no stigma attached to this new drug. This is consistent with the findings of Van Hout and Bingham (2012) in their study of mephedrone use among injecting heroin users in Dublin. Drug experts interviewed in my study also described how long-term drug users who moved from using traditional illicit drugs to mephedrone wanted to be praised for this change. In these

individuals' opinions, using mephedrone instead of these other drugs was a positive development, for which they thought they deserved appreciation. This is how Alison, the NHS nurse, described this:

*'Marian: Would you say there was any stigma attached to mephedrone initially?
Alison: No. Because if anything, people liked mephedrone. [It was] the other way around, because they weren't using heroin. Heroin users are largely, I think, stigmatised in S... and the idea that they were no longer using heroin was seen as a really positive thing and they really liked that. So I would say it was the opposite way around, from what people said to me. They wanted you to be pleased for them that they managed to kick the heroin habit.'* (Alison, NHS nurse)

Summary

From the discussion above it can be concluded that the onset of mephedrone use could not be attributed to a single factor. Instead, responsible for that was a mixture of external and personal motivations that came together at the right time and caused people to start using mephedrone. Kevin, one of the drug workers I interviewed, used these words to describe it:

'Yeah, it [mephedrone] arrived at the right time, I think. It was one of those perfect storms.' (Kevin, drug worker)

In the next section of this chapter I turn to the use of synthetic cannabinoids. In comparison to mephedrone, participants talked considerably less about the reasons for their synthetic cannabinoids initiation, and this is reflected in the amount of space dedicated to this issue below.

Initiation into synthetic cannabinoids use

The other NPS that gained popularity within the population of problem drug users I studied were the synthetic cannabinoids – a group of chemicals that mimic the effects of herbal cannabis. These substances are usually sprayed on an inert vegetable matter, which is then smoked (Fattore and Fratta, 2011).

From the total number of drug users interviewed in this research, almost two thirds (65%, n=17) used synthetic cannabinoids. The overwhelming majority of them (82%, n=14) remained at the level of experimental users, one used them recreationally (6%), and the remaining 2 went on to develop a problematic use of these drugs (12%).

Participants referred to synthetic cannabinoids as 'Spice' or using the most popular brand names under which these were sold (e.g. 'Exodus', 'Black Mamba'). However, more frequently and notably, the synthetic cannabinoids were called generically 'the legal highs'. During

interviews and observations, drug users made it clear that it was the synthetic cannabinoids that they called ‘the legal highs’ and that they did not regard mephedrone as being part of that group of substances. Gavin, a current heroin user, explained this to me in categorical terms:

‘Legal highs’ are the ones that you smoke. And they’re all chemicals. [Meow] it’s not a legal high. It’s not legal high; it’s a different drug altogether.’ (Gavin, 52 years, heroin user)

As was the case with mephedrone, synthetic cannabinoids were an addition to an already existing repertoire of drugs used by participants. At the moment of their first use of a ‘Spice’ product, the vast majority of participants (82%, n=14) were mainly heroin users, 2 were mainly amphetamine users (12%) amphetamine and the remaining one was a mainly cocaine user (6%).

Characteristics of synthetic cannabinoids initiation

If in the case of mephedrone there were variations in terms of the route of administration at the first use, in the case of ‘Spice’ all drug users I interviewed reported that they exclusively smoked these substances either in a cigarette mixed with tobacco (i.e. ‘in a joint’), or using a bong. This finding is not surprising though, because as opposed to mephedrone, which can be consumed in a variety of ways, there are no reports to suggest that synthetic cannabinoids were, or could be used in any other way but through smoking.

When questioned about the location where their first use of synthetic cannabinoids took place, almost half of the participants (41%, n=7) reported that this happened in prison, where these drugs were widely available. Both drug users and drug experts agreed on the large-scale availability of synthetic cannabinoids within this closed environment:

‘Spice, I know it’s Exodus. I know about them, it’s very big in jail at the moment. Very, very big.’ (James, 37 years, heroin user)

‘Marian: Apart from mephedrone, was there any other substance that appealed to this population?’

Caryl: ... I know the synthetic cannabinoids is quite a big one, especially within the prison population. But as for names, I’m [not sure].

Marian: I wasn’t looking for names. Mephedrone is a particular case, a specific case in which you do have a name. But then you have the cannabinoids, which are a larger group of substances.

Caryl: Yes, we get stats about [them]. There’s loads of synthetic cannabinoids out there, and certainly, like I said, within the prison population.’ (Caryl, drug policy)

All those participants who had their first experience with synthetic cannabinoids in prison reported that the drugs had been offered to them for free, by a fellow inmate. Biggie, for

instance, remembered that someone from a different cell handed him the first synthetic cannabinoid he tried and that he expected to smoke herbal cannabis on that occasion rather than its synthetic variant:

'Marian: Have you used any of these new drugs?

Biggie: Yes, I've used Spices while in prison. It's very popular in prisons mainly because they can't be detected through drug tests.

Marian: How was it when you took these?

Biggie: It's been offered to me by someone from another cell, you know? I thought it was normal weed, you know? I've asked him: 'What do have there, mate?' And he gave me a spliff. I've only had five puffs and I started sweating, and I became paranoid. I was alone in the cell. Thanks God I was alone, otherwise I would have been really scared. These Spices are so much stronger than the normal weed. It didn't give me hallucinations or anything like that, but it did make my head buzz. It made my head buzz.' (Biggie, 40-45 years, heroin user)

Similarly, John had been offered the first dose of synthetic cannabinoids while in prison. He also reported that neither him, nor the person who offered him the drugs knew that what they were about to smoke was a synthetic drug. Instead, they both expected to consume a strong variety of herbal cannabis called 'Skunk':

'Marian: When did you try it in the first place?

John: I just, like I said, when I was in jail, I thought it was Skunk.

Marian: Okay.

John: So once, one day. [pause] So, what it was, my next door neighbour slipped me a bag of weed through the door, with a piece of rope against it, attached to it so I can get that. I got up the rope, but he thought it was, he thought it was Skunk as well. So, when I smoked it, he shouted from the next door, like, saying: 'I don't know what it is in that I've send you, but I'm tripping'. I'm smoking mine and: 'Wow!' Like, remember watching that, the new Star Trek film and all the colours on it. It was like, that was the best film I've seen in my life.' (John, 33 years, heroin user)

The remaining participants (59%, n=10) reported that their onset of synthetic cannabinoids use took place outside the prison environment and that they had their first ever dose offered to them by a friend who was a more experienced user of these substances. One of these participants was Gavin, who was a problem user of heroin when he tried synthetic cannabinoids for the first time. He described below the circumstances in which this happened, stressing that this was not a pleasant experience:

'Marian: Can you remember in what context did you take it ['Spice']?

Gavin: Well, the boys who I used to bong with said : 'Have a go!' So I said: 'Yeah, I'll have a try.' I had a try of it and I hit the floor like that. It only took two puffs and 'Bump!', straight over. No good to me at all.

Marian: So it was offered to you, you didn't look for it, someone gave it to you.

Gavin: Yeah, the boys.' (Gavin, 52 years, heroin user)

In a similar fashion Gary, who was a heroin user when he tried synthetic cannabinoids for the first time and who also described himself as a ‘cannabis and hashish connoisseur’, reported that he was introduced to synthetic cannabinoids by one of his friends who was a prolific user of these drugs. Like Gavin above, Gary also recalled that his first and only experience with synthetic cannabinoids was a negative one and that he cannot understand why his friend was using these substances:

‘Marian: You said you enjoy[ed] your hash. Didn’t these ‘Spices’ appeal to you?’

Gary: No.

Marian: Why? Have you tried any?’

Gary: Once I tried a legal high and it was one of the most horrible buzzes. I’ll never smoke it again.’ (Gary, 47 years, heroin user)

Motivations for synthetic cannabinoids initiation

As seen in the earlier sections of this chapter, the onset of mephedrone use within the population of problem drug users I studied was strongly associated with the heroin drought that happened in South Wales in 2012-2013. By contrast, no such shortage was associated with the onset of synthetic cannabinoids. In fact, as Eric, the manager at ‘Catfield’ made it clear, the cannabis market did not experience any shortages at that time; this drug has consistently been available on the UK market in the recent past:

‘I think the mephedrone-like substances were adopted first because [of the] availability of heroin, or lack of it. But with the Spices, it was that question again: ‘Why would you smoke Spice when you can smoke skunk?’ Skunk was fully available.’ (Eric, drug service manager)

When questioned about the reasons that made problem drug users start using synthetic cannabinoids, participants came up with a few recurrent answers, presented below.

Non-detectability of synthetic cannabinoids through routine drug tests

The most cited reason why problem drug users started using synthetic cannabinoids was because these substances were not detected through routine drug tests. This feature was of particular significance to this cohort because most of them were regularly subjected to toxicology tests, either in prison or in the community as part of court orders. For the participants in this research, the submission of a positive drug test could have had important negative consequences such as the delay of the release date for those in detention, or the exclusion from a drug treatment programme or even imprisonment for those outside prison. The following quotation from Ian, who has spent time in prison and had his first experience with synthetic cannabinoids in this environment, is revelatory:

'The reason why they take it [the 'Spice'] in jail is because it doesn't come up in drug tests. It's just like smoking weed, but you're not gonna get nicked for it.' (Ian, 33 years, heroin user)

Josh, a current problem user of synthetic cannabinoids who unlike the two participants above, started using these drugs while he was not in prison, also explained that his decision to begin using these drugs was influenced by the fact that they were not detectable through drug tests:

'I'm with an agency now where I have methadone liquid, but I still look for that buzz. And I can't take heroin because I get tested all the time so I go and get the legal high 'Exodus'. And this one, it's undetectable. That's why I started taking it.' (Josh, 28 years, heroin user)

Legal status

Participants indicated that the fact that the vast majority of the synthetic cannabinoids sold on the UK market were legal also played a role in their decision to start using these drugs. For this cohort of problem drug users, the legal status of the 'Spice' products meant that they could experiment with these substances without the risk of suffering any legal consequences if found in their possession. Rob explains that finding a legal replacement for cannabis was what made him try a number of synthetic cannabinoids:

'Marian: Did you have any experiences with other NPS? Synthetic cannabinoids, for instance.'

Rob: Yeah, I've done a couple. I continuously tried them because I wanted to find one that I could replace cannabis with. Because then I could carry it legally and not worry about the implications of arrest and that sort of thing. It would be quite nice.' (Rob, 32 years, amphetamine user)

Eric, the manager at 'Catfield' explained that the problem drug users who were enrolled in drug treatments started using synthetic cannabinoids because they felt justified to do so. In these individuals' view, these substances were similar to any other legal product such as tobacco and alcohol:

'Eric: We're seeing in treatment now people who are prescribed, or going to be prescribed, or wanting to be prescribed. Because of the label of 'legal highs' [of the synthetic cannabinoids], they feel completely justified in their use. While they're on their scripts, because a substance is legal, they don't see it any different to drinking, to smoking.'

Marian: You mean their use of 'legal highs'?

Eric: Yeah. Because of that banner that they have, being legal.' (Eric, drug service manager)

Availability and ease of access

Drug experts also indicated that problem drug users had easy access to synthetic cannabinoids. These drugs were not only widely available, but their purchase was also convenient. According to these participants, synthetic cannabinoids could be bought over the counter from the many specialised shops that were open daily from 9 AM to 5 PM, and this meant drug users did not have to go through a similar hassle as in the case of buying an illegal substance:

'And then they were able to purchase quality [drugs], [with] less impurities, quality drugs with less hassle ... You know that as long as it's between nine and five you could go to a shop and quite easily purchase it without the stresses and the strains.' (Phil, drug service manager)

'The availability of it, as well. It was literally the case of walking through a shop and you could just buy your drugs. There was no hanging around a street corner, and all the violence and stuff that comes with that [was avoided]. You just walked into a shop and bought it. Simple as that.' (David, drug worker)

Participants largely agreed that the major source of supply for synthetic cannabinoids in the case of this cohort of problem drug users was the specialised head shops. However, during my observations it became apparent that sometimes these drugs were also being sold by user-dealers, something which was later confirmed in the interviews as well:

'Today Damien, who is a problem user of synthetic cannabinoids, came in with Josh at Catfield. Damien got called quite a few times by someone who wanted to buy Spice from him. He must be a dealer. At some point, Damien started listing what he had for sale: Voodoo Mangled, Insane Joker and K2Black. These are all synthetic cannabinoids [brands]' (field notes, Catfield, 27/01/2016)

Curiosity

As with mephedrone, some drug users explained that they first tried synthetic cannabinoids because they were curious to experience their effects. Gavin, a current problem user of heroin remembered that the reason why he smoked 'Spice' for the first time was to see what its effects were:

'Marian: Can you remember in what context did you take it?

Gavin: Well, the boys who I used to bong with said: 'Have a go' So I said: 'Yeah, I'll have a try.'

Marian: But why did you try it?

Gavin: Just to see how it's like, you know? To see if I like it or not. To see how the head is like off it and that.' (Gavin, 52 years, heroin user)

Diane, who also reported that problem drug users like her decided to try synthetic cannabinoids because they were curious about its effects, made a similar point:

'People will want to try them to see what's all about. You wouldn't have dreamt about these things in Swansea years ago' (Diane, 42 years, heroin user)

This explanation was supported during the interviews with drug experts, who also identified curiosity as one of the reasons why drug users took the decision to try synthetic cannabinoids for the first time. Neil, a drug worker and professional trainer for drug workers, linked curiosity with the drug's novelty and the fact that these substances were often mentioned in the national and local media as potent and dangerous drugs:

'And I think a lot of people were actually quite excited, they kind of wanted to know what this drug was all about because obviously it was getting a lot of media attention for the wrong reasons.' (Neil, drug workers' trainer)

To avoid stigma associated with other drugs

Josh, who at the moment of the interview was a problem user of synthetic cannabinoids, explained that he decided to start using these drugs because he did not want to be labelled as a 'smack-head' anymore. In fact, he also convinced his partner to do the same:

Marian: So, when did you start to take legal highs?

Josh: Just before Christmas last year.

Marian: What were you using before?

Josh: I was on everything: crack, heroin. I got me and him [his partner Damien] down on the legal high and 2 mil of subbi [Subutex] every day.

Marian: So you're doing subbies.

Josh: Yeah, sorry. [He takes a phone call. From his conversation I was able to understand that he was also selling 'Spice' products, namely 'k2 black' – a brand of 'Spice'. Our conversation resumes]

Marian: So you were on heroin.

*Josh: Yes. As I told you, heroin is not my drug. I've only been on heroin because of my partner. But I got off it [off heroin]. I got off it on the legal high and I got him [Damien] off it on the legal high too. I'd rather people know him as smoking legal high than a f***ing smack-head! I can't stand the fact that people look at him as a dirty junkie. I'm not having that, he's my f***ing partner.'* (Josh, 28 years, heroin user)

Paul made a similar point about the fact that some problem drug users started using synthetic cannabinoids because these drugs do not have a stigma attached to them as heroin and crack cocaine do, for instance. He explained that this was mainly due to the fact that the synthetic cannabinoids were called 'legal highs':

'[A]nd people use Spice because of the name 'legal high' as well. At least it's not heroin, I'm not a smack head or a crack head. It doesn't have that stigma.' (Paul, 34 years, heroin user)

Summary

Similar to the onset of mephedrone use, the onset of synthetic cannabinoids use within the problem drug users interviewed in this research could be explained by a mixture of reasons, some contextual and some more personal. However, contrary to what happened in the case of mephedrone, the first use of synthetic cannabinoids was not influenced by a shortage of cannabis on the market of illicit drugs in South Wales. What also distinguishes the synthetic cannabinoids from mephedrone is the role played by the legal status of these two different substances. In the case of mephedrone, the *illegal* status of this drug was one of the factors that attracted drug users toward it, whereas for synthetic cannabinoids, their *legality* made drug users interested in experimenting with them.

Conclusion

From the large group of NPS currently available on the UK market, mephedrone and synthetic cannabinoids were the only such substances used by the population of problem drug users from South Wales who took part in this research. The aim of this chapter was to describe the context in which drug users started using these substances and to identify and discuss the reasons behind the decision to use these drugs for the first time.

Mephedrone was a popular drug among the sample of drug users interviewed in this research, with almost all (23/26, 88%.) having used it at some point in their life. By far the preferred route for administering drugs within this population was injection. However, when questioned about how they consumed mephedrone for the first time, participants reported that intranasal and intravenous methods were equally popular. Moreover, the vast majority of the interviewees related that their first ever experience with mephedrone took place in their own home or at a friend's house, and in the company of their drug-using friends, who were also the ones who offered the participants their first ever dose of this drug.

The reasons why these problem drug users started using mephedrone were discussed with both drug users and drug experts, who all stressed that the onset of mephedrone use was caused by a combination of different factors. Some of these explanations were independent of the drug users' control and included the illegal status of mephedrone, the low availability and poor quality of the heroin on the market, and the difficulty in sourcing replacements for heroin. Participants also identified a few explanations that were more personal to the drug users and these included curiosity, pain relief, a search for a desired effect, wanting pleasure that others

were experiencing, the fact that everyone else was using mephedrone, a perceived lack of stigma attached to mephedrone, and a preference for injecting drugs.

In comparison to mephedrone, both drug users and drug experts who participated in this research reported far less about synthetic cannabinoids during the interviews, suggesting these substances were less popular or less problematic. Without exception, all participants who tried these drugs reported that the first and only means of consuming synthetic cannabinoids was to smoke them either in a joint mixed with tobacco, or in a bong. Many participants reported that their first ever use of a ‘Spice’ product took place in prison. Those who tried synthetic cannabinoids for the first time while in detention remembered that these substances were very popular in this closed environment and that the first ‘joint’ of this drug was offered to them by a fellow prisoner. Those participants who had their first experience with ‘Spice’ products outside prison reported that this happened in the company of other drug-using friends, who were more experienced users of synthetic cannabinoids and who were also those who supplied them with the first dose of the drug.

The drug users and drug experts interviewed in this research identified a variety of factors that contributed to the problem drug users’ decision to start the use of synthetic cannabinoids. Some of these were, as in the case of mephedrone, independent from the drug users’ control and included the fact that synthetic cannabinoids were not detectable through toxicology tests, the fact that these substances were legal, and the ease of access to these substances through specialised head shops. The remaining explanations were more personal and included the curiosity to try a novel substance and a desire to avoid the stigma associated with the use of illegal drugs such as heroin.

Most of those participants who ever tried mephedrone, and considerably fewer of those who ever tried synthetic cannabinoids, continued using them after initiation, meaning they passed into the next phase of their use of these substances, namely *the persistence* stage, which is discussed thoroughly in the following chapter.

CHAPTER SEVEN - Persistence in the use of NPS

Introduction

In the previous chapter I outlined how and why the problem drug users who participated in this research started using mephedrone and synthetic cannabinoids. Some of those who tried these new psychoactive substances decided not to continue using them, and these individuals' accounts are presented and discussed in detail in Chapter Eight. However, the vast majority of those who tried mephedrone and a few of those who tried synthetic cannabinoids began to use these substances more regularly and some even went on to use them problematically. It is this category of participants that constitute the focus of the present chapter. Mephedrone and synthetic cannabinoids had different impacts on participants' repertoires of drug use. For some, these new psychoactive substances constituted mere additions to their existing menu of drugs. For others though, mephedrone and synthetic cannabinoids had a much more important impact, in the sense that these new psychoactive substances replaced entirely their primary drug of choice (i.e. heroin, amphetamine, or cocaine).

Following the same model adopted in Chapter Six, the current chapter is divided into two main sections: the first one focuses on mephedrone, and the second one on synthetic cannabinoids. For each of these drugs, I initially describe how in practice participants persisted in using these drugs, with particular emphasis on the type of use, the impact these new psychoactive substances had on the users' existing repertoire of drug use, and the route of administration adopted during the continued use of these drugs. Subsequently, I identify and discuss the reasons why problem drug users took the decision to continue using each of these NPS.

Persistence in mephedrone use

From the 23 participants who ever tried mephedrone in their lifetime, nearly two thirds (n=15) moved beyond the initial use of this substance and could be regarded as having entered the persistence phase of their mephedrone use. The interviews with the drug users and drug professionals revealed two patterns of persistent use of mephedrone: 1) occasional use and 2) problem use.

Occasional use of mephedrone

Faupel (1991) acknowledges that after the initial experimentation with a drug, some users will remain occasional users throughout their entire careers. Nevertheless, the same author stresses

that, for others, the occasional use is an intermediate stage either at the beginning of their ‘career’ when they move from the initial use towards problematic use, or at the end of their ‘career’, as a stage between problematic use and desistance (i.e. cessation of use). Participants provided examples of each of these types of occasional use of mephedrone and these are presented below.

Angharad, for instance, was an occasional user of mephedrone for about two years and she reported that her use of this drug never escalated to the point of becoming problematic. However, she admitted using amphetamine, the drug which she described being addicted to, on a daily basis:

‘I do meow as a treat. That’s better, ain’t it? Ha ha. And I use speed every day. I got a habit [for speed – i.e. amphetamine]. I do meow probably once a month.’ (Angharad, 52 years, amphetamine user)

Adrian, who was a current problem heroin user, also described occasional use of mephedrone and like Angharad, regarded using this latter drug as a ‘treat’. He made it clear though, that it was his primary addiction he had to take care of first, before thinking about spending any money on ‘meow’:

‘I started doing meow a year ago. I have used meow now and then, but that’s not something that I do all the time. I use it 2-3 times a week at times, other times once a fortnight. I haven’t done it in a few weeks now ... I will only go for meow if I had spare money. I’ll always make sure I have enough money for my heroin addiction and make sure that’s covered first. If I needed heroin, I’d walk 100 miles to get it, but if I couldn’t get meow easily I wouldn’t bother.’ (Adrian, 28 years, heroin user)

For Jane and most of the other problem drug users on the other hand, the occasional use of mephedrone was short lived and it constituted a stage towards a problem pattern of use of this drug. Jane remembered that she started taking mephedrone occasionally when she went out on the weekends, but this soon turned into a daily routine. As she put it:

‘It started recreationally, it did, as I said. But it became a problem then. It was just for a Friday night, going out, you know? Having a good night out. But it then turned into nearly every day.’ (Jane, 42 years, cocaine user)

Other users, like Ryan, developed a problematic pattern of use of mephedrone first and have subsequently resumed a more occasional use. This is how he talked about his use of mephedrone:

*‘Marian: You said before that you were using heroin and then from time to time meow?
Ryan: Oh, yeah. That was when [pause] I got flat out on the meow first. Then I swapped the meow for the heroin and started just doing heroin, but I’d also take meow sometimes as well.’ (Ryan, 24 years, heroin user)*

Problematic use of mephedrone

Almost half (48%, n=11) of the drug users I studied who started using mephedrone went on to develop a ‘problematic’ pattern of use of this drug. Rob, an ex-problem user of cocaine, amphetamine and mephedrone provided a relevant definition for this pattern of use: *‘[It was] a pure addiction, something I had to do, a lifestyle more than a part of my life’*.

When asked to describe the period of time when they used mephedrone in a problematic way, participants often mentioned a daily pattern of use of the drug:

‘Marian: Would you say you had a problem with meow?’

Ryan: Yes, I did. It’s addictive, I’d have it every day. I would spend 80-100 pounds worth each day.’ (Ryan, 24 years, heroin user)

Participants reported that they developed a problematic pattern of mephedrone use very quickly. The rapid escalation in the quantities used by these participants could be explained by the fact that mephedrone’s effects do not last very long and that this often leads to repeated dosage in one session of use, as in the case of other stimulants such as amphetamine and cocaine (McElrath and O’Neill, 2011; Moore et al., 2011). This is what Clint and Tom, who both used mephedrone problematically, had to say on this issue:

‘Clint: So, I’ve tried it [and] I liked it. And then, one gram turned in [to] like four hits... and then one gram turned in [to] like two hits, one gram one hit. And then it had to be like a couple of grams one hit. We used to chuck in probably three and a half [grams].

Marian: In one session?’

Clint: Yeah. Get a 2 mil barrel, fill it up, squirt it on it, cook it up⁵ and have a dig⁶.’ (Clint, 40 years, amphetamine user)

‘Tom: Well, when I first started, somebody would come around my house and inject me twice a day, yeah. But then, rapidly, it’s been [pause] having a bag, start shooting and it’s all gone. So that might be in the evening, a bag between two people.

Marian: A bag of?’

Tom: Three and a half grams, an ounce.’ (Tom, 55 years, heroin user)

The compulsive nature of mephedrone use was mentioned by many of the drug users I interviewed. Michael explained how quickly the effects of mephedrone wear off and compared it with heroin, which he was also using problematically:

‘Erm, heroin lasts for 2, 3, or even four hours if it’s a good batch. With mcat, you won’t feel anything after one hour. That’s why every one hour I would inject more.’ (Michael, 32 years, heroin user)

⁵ Refers to the process of heating up the drugs (e.g. heroin, amphetamine) mixed with a liquid in a spoon or bottle cap in preparation for injection

⁶ Injection

Linda made a similar point about the fact that mephedrone's effects do not last for very long and that this led to a compulsive use of the drug:

'[I]t doesn't last that long. It's gonna last two hours at most. That's not a lot. If someone wants more, they're gonna keep buying that every couple of hours. First time you do it and the second time you do it it's nothing compared to the rest of the times you do it, so you need more and more and more.' (Linda, 46 years, heroin user)

The drug experts supported the accounts of the above drug users and insisted that mephedrone was very similar to other stimulant drugs such as crack cocaine, in that it made the users want to continually consume the drug in increasing amounts. This is how Alison, an experienced NHS nurse, put it:

'Alison: [A]nd they were just chasing the high all the time. It's a bit like chasing the high from crack, it was that kind of behaviour.

Marian: So, compulsive.

Alison: Yeah, very, very compulsive. So, they didn't feel the need for those other drugs. It was just to get some more mephedrone.' (Alison, NHS nurse)

Impact on the repertoire of drug use

All of the drug users who were interviewed for this research had a present or past history of problem drug use. The literature on similar populations of long-term drug users is consistent in acknowledging that despite these individuals having a primary drug of choice, they are not exclusive users of that substance. In fact, problem drug users consume a variety of other drugs along with their preferred substance (Chalmers et al., 2010; Darke et al., 2007; Gossop et al., 2003; Williamson et al., 2006). Some authors have also found that long-term users of traditional illicit drugs are often addicted not only to their primary drug of choice, but to a host of other such substances, which they regard as secondary in their repertoire of drug use (Ball and Ross, 1991; Leri et al., 2003). This was also valid for the problem drug users who participated in this study. As I mentioned in the previous chapter, based on their primary drug of choice, participants were divided into problem users of heroin, amphetamine, and cocaine, but they were all, without exception, poly-drug users. Along with their main substance of abuse, these individuals' repertoires of drug use contained a variety of other secondary ones as well, such as alcohol, tobacco, and cannabis, but also benzodiazepines (e.g. Valium/Diazepam, Temazepam), opiates (e.g. methadone, buprenorphine) and other medicines (e.g. Pregabalin and Gabapentin) which were either prescribed to them by a doctor, or obtained illegally from the streets.

This section analyses how persistent use of mephedrone impacted on participants' repertoires of drug use. In the case of some problem drug users, mephedrone replaced these individuals'

preferred substance of abuse. For other participants, though, it had a less of an impact and it represented a mere addition to their existing repertoires of drug use. Examples of each of those cases are presented below.

Replacement of the primary drug of choice

Tom was 55 when I first interviewed him, and he reported that he had started using illegal drugs quite late in life. His heroin use began at the age of 50, having been an alcoholic since the age of 20. In his case, mephedrone totally replaced his heroin habit in the same way that heroin had previously replaced his alcohol use:

Tom: I just tended to use mcat instead of using heroin as I used heroin instead of drinking.

Marian: So you replaced them.

Tom: Replaced them, basically, yeah.

Marian: When you moved to mcat, was it a complete replacement of heroin, or did they 'live together', if I can say that?

Tom: It replaced it, really. They might have crossed over [each other] for a while, but [pause]

Marian: So you switched completely.

Tom: From heroin to mcat, yes. It's more replacing. It was a job to replace the heroin, really.

Marian: So what would you say was your primary drug of choice? If you had a choice?

Tom: I'd go for m-cat straight away.' (Tom, 55 years, heroin user)

John also remembered how mephedrone became his preferred drug over heroin, and suggested this phenomenon was common among the population of long-term heroin users from the area he was living:

John: I served two and a half years, [and] I got out. So, this would be like two and a half years ago. And one of the boys I went to prison with said to me that when I get out, nobody up the Valley was using heroin. They was all using this m-cat, this meow-meow.

Marian: They've switched?

John: Oh, yeah. I'd done that too. I'd done that [for] three weeks [unclear]

Marian: Were you using anything else apart from this?

John: No. I actually got legit, clean of heroin. I wasn't using heroin then. I just used the meow-meow.' (John, 33 years, heroin user)

A similar replacement pattern was reported by Jane, but this time from cocaine to mephedrone:

Marian: When you decided you wanted to quit cocaine and started taking meow, were you still using cocaine?

Jane: A bit, yeah. But then I stopped the cocaine, then I used only the meow.' (Jane, 42 years, cocaine user)

Because all of these participants were poly-drug users, I was interested to find out what happened with the other, secondary substances that they were using after they switched from

their preferred drug to mephedrone. Generally, the interviewees reported that the major change happened at the level of their main substance of abuse and that their overall repertoire of drug use did not suffer any other important modifications.

For instance, participants who were long-term heroin users reported that while they did switch from heroin to mephedrone, they still used substances such as cannabis, methadone, or benzodiazepines in the same way as they did when heroin was their primary drug of choice. Such an example was Rhiannon, who reported that after she completely replaced heroin with mephedrone she still continued to use Valium, which was already part of her repertoire of drug use:

Marian: When you were you using heroin, were you using other drugs as well?

Rhiannon: Yeah. I'd use heroin, but not so much cannabis at that time. It was like Valium, moggies [Mogadon – a benzodiazepine] and things like that, yeah.

Marian: So that was your repertoire.

Rhiannon: Yeah.

....

Marian: Were you taking anything else as well [when you were using meow]? You said that while you were on heroin you would sometimes use Valium, and cannabis as well?

Rhiannon: Hmm, not as much [cannabis].

Marian: So benzos.

Rhiannon: Yeah. I started seeing somebody when I was taking the meow and he was on a really big script. He was on a script of reds, Valium, moggies [all benzodiazepines]. So, basically, I was taking other things, anything really. This was when I was using meow.

Marian: So the secondary drugs of choice remained quite the same, whereas the big switch was [pause]

Rhiannon: From heroin to meow, yeah. I really swapped over. When I got into hospital I was just taking meow.

Marian: So nothing else.

Rhiannon: As I said, I would take now and then the odd Valium and I never smoked weed, never really drank. It was just heroin for me. And then meow.' (Rhiannon, 39 years, heroin user)

Mephedrone as a secondary substance

For other participants though, mephedrone did not have a similar impact. The use of this substance did not affect the use of their primary drug of choice to the point of replacing it. For these individuals, mephedrone was regarded as a mere addition to their already existing repertoire of drug use and was placed in the list of secondary substances used by them.

An example of such a pattern of use was provided by Paul. He made it clear that in his case mephedrone was just an addition to the list of drugs he was already using. He stressed that he

considered the new psychoactive substance ‘a bonus’, like any other drug he would use along with his preferred substance, heroin:

‘I never used it [mephedrone] as a substitute [to heroin]. It was more of a supplement. I’d be on heroin every day, anyway. Whatever I’d take on top would always be in conjunction with my heroin use. I was using heroin daily so anything I got on top was a bonus. I saw it as a bonus.’ (Paul, 34 years, heroin user)

Some of the drug users I interviewed indicated that their supplemental use of mephedrone was conditioned by the availability of additional funds. These participants explained that they would consider using mephedrone only after their primary addiction was satisfied for the day. Michael, and in more detail Adrian, described this pattern of mephedrone use below:

‘Michael: I was using mainly heroin and then crack and M-cat...

Marian: How often, in a week, would you use all of these?

Michael: Heroin every day. Crack or m-cat if I had extra money, just once or twice a week.’ (Michael, 32 years, heroin user)

‘It [the mephedrone] was just something I enjoyed doing at the time and it was like a treat sort of thing. At one point it was just heroin, and then the meow came out so I was dabbling with that for a bit, now and again. I was homeless and I was begging money. Once I bought myself heroin and sorted myself out and I was feeling normal, if I had money left over, then I’d go and buy some meow just to have that buzz and have that head.’ (Adrian, 28 years, heroin user)

To sum up, participants who persisted in their use of mephedrone reported two types of mephedrone use: occasional and problematic. However, these two patterns of use were not self-exclusive, and some drug users displayed both of them at different moments in time. The impact mephedrone had on participants’ overall repertoires of drug use depended on the way they used this substance. During a period of occasional use of mephedrone, participants regarded this drug as a secondary substance, whereas during a period of problematic use, mephedrone replaced these users’ main substance of abuse.

Drug combinations involving mephedrone

Participants often reported using mephedrone in various combinations with other substances. The most common combination was to use mephedrone first and then heroin at the end of the session, a pattern of use described by authors such as Boys et al. (1997) and Collins et al. (1999) as ‘subsequent’ or ‘consecutive’ use. Participants who used mephedrone and heroin in this way explained that they did this in order to avoid the ‘wired-in’ state generated by the mephedrone comedown. This combination fits one of the types of poly-drug use described by Cohen (1981), who stated that sometimes individuals use multiple drugs consecutively as a means to subdue

or suppress the effects of the first drug taken. Here are a few examples of users who combined mephedrone and heroin in this way:

'Every time that I'm taking meow, when I start to come down off the meow, I take heroin to come down off the meow. I haven't done it the other way around.' (Adrian, 28 years, heroin user)

'Marian: Were you using them [mephedrone and heroin] in combination?

John: Yeah, I probably did do the m-cat and then have a couple of lines of heroin to, I don't know, to bring me down.' (John, 33 years, heroin user)

There were a few participants in my sample who reported using mephedrone at the same time with other drugs, a pattern defined by Collins et al. (1999) and Clayton (1986) as 'simultaneous' poly-drug use. Gavin, for instance, explained that he used both crack and heroin together, and mephedrone and heroin in the same shot and he reported that he enjoyed the former mixture more than the latter. He also explained that the reason why people use mephedrone combined with heroin, which he referred to as 'snowballing', is to prolong the effects of both of these drugs:

'Marian: Have you tried that [combining mephedrone with heroin]?

Gavin: With meow?

Marian: With meow, or with crack?

Gavin: With crack, that's not too bad. I've had it. But meow and heroin, that's dangerous.

Marian: When you were using meow with heroin, were you using it in the same shot? The same hit?

Gavin: Yeah. That's dangerous. That could be very dangerous. That causes heart attacks.

Marian: Why would you do this? Why would you try to combine them?

Gavin: To try to make it last longer. The effects of it.

Marian: Of heroin, or of meow?

Gavin: Of heroin and meow together. But because they fight against each other, it's more dangerous. Coz one drug is a downer and, as I said, your heart shoots down and then shoots back up fast again. That's dangerous. It causes heart attacks.' (Gavin, 52 years, heroin user)

Clint, the participant whose use of mephedrone was probably the most problematic, also used to 'snowball' mephedrone. However, unlike Gavin, he did not mix mephedrone with heroin, he mixed it with amphetamine. Clint told me that this pattern of use lasted for a good few months and explained that the reason why he mixed the two drugs together was to increase the overall experience. He put it this way:

'Clint: I was actually mixing meow with speed just to have a bigger rush. The longest I've been up was about seventeen days.

Marian: When you were mixing speed with meow?

Clint: Yes, when I was mixing it with meow. Just constantly, every day. You know the cookers they have down here? We used to chuck loads of meow in, loads of speed in. It

*took f***ing ages to cook that up. We put a whole filter, squirt in a full 2 mil [syringe], four of us and we were having all of it. And it was just tingles, warmth, just, 'Whoa!'*

Marian: Were you doing that often? Mixing?

Clint: Yeah, every day.

Marian: For how long did you do this?

Clint: For months, for months I was doing that.' (Clint, 40 years, amphetamine user)

It is clear from the above paragraphs that the use of mephedrone either consecutively or simultaneously with other illicit drugs was a common practice among the drug users interviewed in this research. What is also important to note at this point is the fact that participants' decision to combine mephedrone with other illicit drugs was an instrumental one, in order to either self-medicate or enhance their overall drug-taking experience.

Route of administration during persistence

As seen in the previous chapter, the participants who started using mephedrone utilised a variety of administration routes when they used it for the first time. Some of those who became persistent users maintained this initial method of administration throughout the entire period of mephedrone use. Clint, for instance, injected mephedrone when he first used it and did not use this drug in any other way. He explained that he did this because he thought snorting the drug would be more dangerous because of the various adulterants that could be added to it:

'Marian: You said you started injecting straight away, from the first time you tried it... Did you use it in any other way, like snorting it?

Clint: No, I just kept on injecting it. I wasn't snorting it coz I've heard people used to put glass in it.' (Clint, 40 years, amphetamine user)

Similarly, Gary reported that he maintained the initial administration route throughout the persistence phase, but unlike Clint, he consumed mephedrone intranasally. Using mephedrone in this way, he avoided the damage he perceived injecting would generate both mentally and physically. This is how he put it:

'Marian: Have you tried to inject it as well?

Gary: No, oh, no, I wouldn't.

Marian: Why?

*Gary: From what I've been told, it's [pause]. Well, if you miss it, things will get very bad. Everyone that I know who takes it seem to me more f***ed up on that than how they get f***ed up on the heroin. Although it's a completely different drug, heroin is an opiate and m-cat is a synthetic drug, it seems to be doing more damage.*

Marian: To the body or mentally as well?

Gary: To both.' (Gary, 47 years, heroin user)

Others, however, added one or a few more administration routes as they persisted in the use of mephedrone. The most common transition in terms of administration routes was from snorting to injecting mephedrone (please see Table 7 below for more details).

Table 7 – Persistent mephedrone users' administration routes

No	Pseudonym	Initiation route	Persistence route	Status
1	Rob	Snort	Snort and bomb	Change
2	Angharad	Snort	Inject	Change
3	Michael	Snort	Inject	Change
4	Lawrence	Inject	Inject	No change
5	Gavin	Inject	Inject	No change
6	Ryan	Snort	Inject	Change
7	Paul	Snort	Snort	No change
8	Rhiannon	Inject	Inject	No change
9	Tom	Snort	Inject	Change
10	Adrian	Snort	Inject	Change
11	Jane	Snort	Snort	No change
12	Clint	Inject	Inject	No change
13	John	Snort	Inject	Change
14	Linda	Bomb	Inject	Change
15	James	Inject	Inject	No change

Michael, for instance, reported that he moved from initially snorting mephedrone to injecting it because he did not like the chemical taste it left in his mouth after sniffing it:

Marian: How were you using it?

Michael: I initially sniffed it, but then started injecting it.

Marian: Why did you do that?

Michael: I sniffed M-cat first, but I didn't like the smell of it inside my mouth. When you inject it, it doesn't smell, you know? You don't feel that chem smell, so I prefer injecting it.' (Michael, 32 years, heroin user)

Angharad also changed her initial route of administering mephedrone, snorting, to using it intravenously because she thought the latter provided her with a better euphoria. This is how she put it:

'Marian: How do you use these drugs?

Angharad: I bomb amphetamine and I inject meow. I snorted meow but it's a better rush when you inject it. It's instant, it's nice, is good, I like it.' (Angharad, 52 years, amphetamine user)

Craig, who was now a peer mentor⁷ and had permanent contact with other drug users in the area, explained that long-term heroin and amphetamine injectors might have started using mephedrone by snorting or bombing the drug, but they rapidly moved to using this drug intravenously, which was their preferred administration route:

'But people went on hitting it up [i.e. injecting it] pretty quickly. Some people started snorting it and then within a couple of weeks, months, they went to injecting. Ninety-nine percent of those were intra venous users of amphetamine or heroin anyway.' (Paul, 34 years, heroin user)

Adrian, who was a long-term heroin injector, explained that he made the change from snorting to injecting because he regarded using drugs intravenously as the ultimate means of consuming drugs and that this was the only way he would be able to enjoy his drug-taking experience in its entirety:

'Adrian: I first snorted meow and then injected it.

Marian: Why move from snorting to injecting?

Adrian: 'Cause I'm an injecting heroin user anyway and that's the ultimate drug taking sort of thing, you know? Doing anything less than injecting is not... doesn't feel good enough, if you know what I mean... the pin fever, definitely it's doing my head in.' (Adrian, 28 years, heroin user)

Summary

As suggested by the accounts above, participants utilised a variety of administration methods for mephedrone during their continued use of this substance. While some of these drug users maintained their initial administration route, others transitioned to injecting this substance, driven mainly by a desire to enhance their mephedrone taking experience or by their preference for this administration method.

⁷ A 'peer mentor' is a person who uses his or her lived experience of recovery from mental illness and/or addiction, plus skills learned in formal training, to deliver services in behavioural health settings to promote mind-body recovery and resiliency (SAMHSA- HRSA, 2016)

Motivations for persistence in mephedrone use

The previous sections revealed *how* participants persisted in their use of mephedrone and provided details about the patterns in which they used mephedrone, the impact this drug had on their overall pattern of drug use, the various combinations of drugs involving mephedrone and the administration routes utilised to consume this drug. The following sections of this chapter focus on the reasons *why* participants decided to continue using mephedrone after their initial experience with this substance.

Enjoyment of the effects

Participants generally agreed that one of the most important reasons why they continued using mephedrone after their initial contact with this substance was the enjoyment of the effects it produced. In Linda's words: *'[I]t is a nice feeling and that's why people go back and get more'*. Like many of the drug users who were interviewed for this research, Clint stressed that the fact that he enjoyed the effects of mephedrone made him persist in the use of this drug:

'Marian: But, why do you still do it [use mephedrone]?'

Clint: Why do it?

M: Yeah.

Clint: Probably because I like it. I like it. The rush, the buzz, the feeling off it, that's why I like it. That's the only reason why I probably take it, because of the feeling, like, I have off it.' (Clint, 40 years, amphetamine user)

A similar point was made by John, who was convinced that if everyone who used mephedrone felt the same enjoyable 'rush' as he did, they would all pick mephedrone over any other drug they ever tried. This is how he put it:

'Marian: Do you think it's the effects, that rush that it gives you, that's why people continue to use it [the mephedrone]?'

John: Yeah, definitely. Yeah, definitely. It was, it was a nice rush, I wouldn't say that it wasn't. It was intense. I think people would like, [if] they'd take[n] the meow, if it does to people what it did to me when I was on it for them three weeks, I think people would pick the meow, M-cat over heroin, or anything. Because of the feeling it was giving.

M: Oh, so the effects are good, nice.

J: Yeah. I think it was the fact that they've tried it and they liked it that much and they thought: 'Shit the heroin, I'm taking this.' That was it.' (John, 33 years, heroin user)

Because of the importance participants placed on the effects they felt off mephedrone, and how enjoyable these were, I asked them to try to describe to me in detail what they experienced after consuming this substance. Fortunately, Adrian was articulate enough to be able to transpose his feelings into words. This is what he said:

'You inject it and then all of a sudden your whole skin goes hot and tingly from your core outwards, to your limbs. Your limbs will start tingling, then it will go to your head and it's just like when you get up really fast off a chair and you get that dizzy feeling in your head. It's like that but multiplied by hundreds. So, you'll have that warm, tingly feeling going towards your extremities and then you'd have the hot sensation in your head that would make you feel all dizzy and everything. And it would be intense for about five minutes and then it would fade down after five minutes. But then, after that five minutes you'd feel just rushing off it and sweating sort of like amphetamines or cocaine, but slightly different. It's hard to explain it without experiencing it. But if you like that intense sort of feeling, it's a hell of a drug.' (Adrian, 28 years, heroin user)

Some participants reported that another reason why they enjoyed mephedrone was the fact that its effects were similar to, and reminded them of, ecstasy tablets from the 1990s. Both the drug users and the drug experts explained that many of the current problem users of heroin and amphetamine were involved in the drug scene in the 1990s, when ecstasy was a very popular substance. This is how Lawrence put it:

'It reminded me of the ecstasy in the 90s, Ecstasy tablets which you wouldn't get too much of today. Some of the effects of meow reminded me of that ecstasy, but it wasn't as strong. For the older generation who knew how ecstasy was like back in the day, it was like a reminder of that. And most of those who did ecstasy then progressed to heroin because they were in the drug scene, the same circle of people.' (Lawrence, 34 years, heroin user)

Some drug users also reported that they enjoyed using mephedrone regularly because at the appropriate dosage, it would provide them with a gouching effect similar to that experienced after taking heroin. Van Hout and Bingham (2012), in their study of Irish heroin injectors who switched to mephedrone found a similar explanation for this move. This is what Rhiannon had to say about this:

'Rhiannon: I think with meow, when you're injecting it, if you inject enough of it, it gives you that gouching. And for me, that was as close as I could get to heroin at the time. So I used to inject it.

Marian: This is really weird, because [meow] is a stimulant. You say that by increasing the dosage you'd get that?

Rhiannon: Yeah, definitely. Like with heroin, you start off doing a little bit, and then you just increase as you go along. So yeah, you'd get that sleepy, gouching. And sometimes I'd inject it and my whole body would shake. Which was a bit scary at the time. I wouldn't have that with heroin, but my whole body would shake. Sometimes you can get so much meow it makes you sleepy.' (Rhiannon, 39 years, heroin user)

Addiction

Another explanation for the continued use of mephedrone that became apparent during interviews with problem drug users was the addiction to this substance. Given its controversial nature, it is difficult to find a generally accepted definition for this concept. Instead of trying

to define 'drugs addiction', criminologists such as Hanson et al. (2012) found it more convenient to identify a list of features which are usually associated with addiction. A similar approach is preferred here and the participants' use of mephedrone was considered addictive if the drug users: 1) developed an increased tolerance for the drug, 2) displayed signs of physical and/or psychological dependence, and 3) experienced withdrawal symptoms following cessation of mephedrone use (Hanson et al., 2012:58).

Rob, for instance, explained that his tolerance for mephedrone increased in a relatively short period of time. More importantly, he reported that he got to the point where he could not function anymore as a normal person unless he used mephedrone, a clear indication of the fact that he was physically dependent on this drug:

'I started using mephedrone and I quickly went from my first initial binge into using it every day. When I started using, the first binge I had [it was] probably a couple of grams over a couple of days. Two days, so only a gram a day. But my tolerance raised very quickly and then I started using more. I was using more, my tolerance was growing. Yeah, my tolerance did grow very quickly. I was using a lot, quite like a fair bit, yeah. When I started using mephedrone, I wasn't able to function without it. I was staying in the house until I could get some. And then I'd go get some.' (Rob, 32 years, amphetamine user)

For some drug users like Tom, being addicted to mephedrone became a realisation when they started experiencing physical withdrawal symptoms if they did not use the drug:

'Tom: I started to use meow before I moved to N [location]. There was someone coming to my house twice a day and give me injection twice a day, of meow. And I became addicted to that because if I didn't have it, I would get up tight.

Marian: So you were feeling withdrawals?

Tom: Withdrawals, yeah. I was using regular[ly], almost every day, spacing out the hits one every hour, or something.' (Tom, 55 years, heroin user)

Drug users interviewed for this research also described a psychological addiction to mephedrone. On that point, Clint reported how he was constantly attracted to the drug, despite the fact that he became aware of the risks associated with the continued use of it:

'Marian: Why do you keep on doing it, knowing the risks involved?

Clint: I know. I just don't think about it [the risks]. I think about it, but when I'm using it, I don't think about it.

Marian: When you see the bag?

Clint: Yeah, yeah, yeah. I just don't think about it. But I do think about it 'cause I'm talking to you now, but when I then got it then, I don't think about it. It's just mad. (Clint, 40 years, amphetamine user)

Many drug users compared their addiction to mephedrone with the addiction to heroin and/or amphetamine. Some users, like Jane below, insisted that the physical withdrawals they felt

when coming off mephedrone were considerably less serious than those experienced in the case of heroin:

Marian: Did you feel any addiction to it? Withdrawal afterwards?

Jane: No, no, nothing compared to heroin. It's not like that. No, it's not. I don't think it's any comedown from it to be honest. I think if people say that they're ill it's more in their heads, it's psychological.

Marian: So nothing physical at all.

Jane: No. Not for me, anyway. I've seen people who were saying they're clucking off it [of mephedrone] and I found it hard to believe, I did. I've never been through withdrawal at all like.' (Jane, 42 years, cocaine user and ex-heroin user)

Similarly, Clint explained that he thought his addiction to mephedrone had a more psychological nature. He made this statement based on the fact that the physical withdrawal symptoms he felt from mephedrone were not at the same level as those he experienced from heroin. In his words:

Marian: Do you feel like meow is giving you an addiction? Do you feel it in the morning?

Clint: No, no.

Marian: So that was for heroin, when you said you were feeling the need for it [in the morning]?

Clint: Yeah, just with heroin. With the meow, it's more mental, it's not physical. Well, it is physical, but you don't cluck off meow like you do with heroin.' (Clint, 40 years, amphetamine user)

Self-medication

As seen in the previous chapter, one of the reasons why problem drug users started using mephedrone was because they had heard that this drug had the ability to alleviate the physical pains experienced during the heroin 'cluck', meaning the heroin withdrawal. Those who tried mephedrone and saw that these rumours were true took the decision to continue using this substance for this very reason. Not surprisingly, this was one of the most often cited reasons why participants persisted in using mephedrone. Lawrence and Michael, both long-term heroin users, had this to say about this aspect:

Lawrence: I used to take meow to manage the heroin cluck. I've used meow to get me over my withdrawal, yeah.

Marian: Did it work?

Lawrence: Yeah, I used to get high off the meow and the withdrawal went.' (Lawrence, 34 years, heroin user)

Marian: Have you heard people saying that M-cat takes away the cluck?

Michael: Yes, I have, yeah, and in fact, I've done that myself.

Marian: Was it effective in this way?

Michael: Yeah, I've been rattling withdrawing off heroin, skint, you know, no money and that, and someone said: '[Do] you want some M-cat?' And I've taken it and it's

that strong it completely overrides the withdrawal symptoms of heroin. Yeah, that's true, I've used it in that way.' (Michael, 32 years, heroin user)

Some drug users like Ryan suggested that because they found mephedrone efficient in avoiding the heroin withdrawals, they decided to use this substance as a means of quitting heroin:

'Marian: I'm asking you this because I'm interested to know why people switched from heroin to meow.

Ryan: It's because they probably wanted to come off heroin with meow, using meow. You can get off heroin on the meow. Because it keeps you awake and stuff, takes away your pain and that. So, some people just swap it for another.

Marian: Many people told me this: 'I went on to use meow just because I've heard that it can take the [heroin] cluck away'

Ryan: Yeah, yeah, it does, yeah.' (Ryan, 24 years, heroin user)

This argument was largely supported by drug experts as well. Alison, for instance, an NHS nurse in daily contact with problem drug users, stressed that this was probably the most important reason why people from this population started and continued using mephedrone. She also added that the low price of this drug and the enjoyable effects it produced were also taken into account by drug users when deciding to persist in the use of mephedrone:

'People started and then kept on using it simply because word quickly got [a]round that if you took mephedrone, the cluck went away. And the fact that they weren't withdrawing from heroin and they didn't have any of the unpleasant side effects of withdrawal. The principal reason was that it stopped them withdrawing. This group of people [of problem drug users] were using it because it allowed them to stop withdrawing.' (Alison, NHS nurse)

Price

Both drug users and drug experts largely agreed that due to its low price mephedrone provided better value for money when compared to other traditional drugs. Neil for instance, who was a drug workers' trainer when I interviewed him, summarised this argument effectively when he compared mephedrone with heroin:

'[T]hey get more bang for their buck, so to speak. It might be more financially viable. It may cost the same, but the gram of the mephedrone is getting them a lot further than the gram of heroin.' (Neil, drug workers trainer)

Drug users like James, a current heroin user, and Rob, who was a problem cocaine user when he started using mephedrone, also confirmed that an important contributor to the popularity of mephedrone was its better value for money when compared to heroin and cocaine, respectively:

'James: You'd get more for your money, if you like, I suppose. It would hit you for six.

Marian: Like in cricket?

James: Yeah. It would. For a tenner you'd spend on heroin and a tenner on meow, you'll get much more of it on a tenner of meow.' (James, 37 years, heroin user)

'Rob: Why would I do a drug that's 50 pounds for a gram [i.e. cocaine] when I can do a drug that I can get for, for pence, like, really, and that lasts so much longer. With cocaine it would last me for twenty minutes and then I'd have to re-administer, re-administer, re-administer.'

Marian: So cost effectiveness.

Rob: Yeah, a big thing. [There were] lots of people on the dole in the area I was in, so cheap drugs were better because it's hard. People on the dole can't afford cocaine.'
(Rob, 32 years, cocaine user)

Availability

Finally, participants cited the availability of mephedrone as another reason why they persisted in using this drug. Drug users like Rhiannon and Jane below, explained that at the time they were using mephedrone, it was readily available on the streets and it was relatively easy to purchase:

'It [mephedrone] became more available back then. Everyone had it. Yes, it was less of a hassle to get hold of it.' *(Rhiannon, 39 years, heroin user)*

'Marian: Was C... the only place where you could find meow?

Jane: No, it was even in my village. It's everywhere meow. It's easier to get than heroin. Yeah, it was everywhere' *(Jane, 42 years, cocaine user)*

Participants also reported that they continued using mephedrone not necessarily because this drug was readily available on the drugs market, but because it was available within their circle of drug-using friends. This is how James and Lawrence put it:

'Marian: So meow was available and people you hanged around with.

James: It was there and that's basically why I did it.' *(James, 37 years, heroin user)*

'Lawrence: It was around me and that's why I was taking it. It's the same as if now I had money and someone said: 'Do you want to go and get a drink?' I'd say: 'Yeah, ok.' It's the same with drugs.' *(Lawrence, 34 years, heroin user)*

It is important to note here that none of the motivations discussed above could be regarded as the sole reason why these individuals continued to use mephedrone. Rather, a combination of two or more of these factors contributed to problem drug users' decision to persist in their use of this drug. Table 8 below presents the reasons cited by each participant for their continued use of mephedrone.

Table 8 – Motivations for continued use of mephedrone

No.	Pseudonym	Type of mephedrone use	Reasons for persistence
1	John	Problematic	Enjoyment of effects, cost effectiveness
2	Michael	Problematic	Enjoyment of effects, cost effectiveness
3	Tom	Problematic	Enjoyment of effects, addiction
4	Linda	Problematic	Enjoyment of effects, addiction, cost effectiveness
5	Josh	Problematic	Addiction, self-medication
6	Jane	Problematic	Addiction, cost effectiveness, availability
7	Ryan	Problematic	Addiction, self-medication
8	James	Problematic	Enjoyment of effects, addiction, cost effectiveness
9	Clint	Problematic	Enjoyment of effects, addiction, availability
10	Rhiannon	Problematic	Self-medication, cost effectiveness, availability
11	Rob	Problematic	Enjoyment of effects, addiction, cost effectiveness
12	Adrian	Occasional	Enjoyment of effects, cost effectiveness, self-medication
13	Lawrence	Occasional	Cost effectiveness, enjoyment of effects, availability, self-medication
14	Angharad	Occasional	Enjoyment of effects, availability

Summary

The reasons why problem drug users in this research continued using mephedrone were summed-up effectively by Alison: *‘It was cheaper, much, much cheaper than heroin at the time. So you could take it, you wouldn’t have any withdrawals and you felt fantastic at the same time. So there was no competition, really’*. In other words, participants persisted in their use of mephedrone because they enjoyed the effects produced by this drug, which was affordable, available, and also efficient in alleviating the heroin withdrawal symptoms. What Alison failed to mention was the fact that some participants became addicted to mephedrone and that was their reason for their continued use of this drug. Drug users displayed both physical and psychological signs of addiction and generally reported that the psychological dependency on mephedrone was more significant than the physical one. What Alison also managed to capture

in her account was the complex nature of the motivations for participants' continued use of mephedrone. The data from the interviews suggests that the decision to persist in the use of mephedrone could not be explained by a single factor, but rather a combination of two or more. The remaining sections of this chapter focus on the other NPS that gained popularity within the population of drug users who participated in this research, namely synthetic cannabinoids.

Persistence in the use of synthetic cannabinoids

Only a few participants who experimented with synthetic cannabinoids continued using these drugs after their first experience with them. More precisely, out of the total number of 17 drug users who had ever tried synthetic cannabinoids, only two went beyond the experimental phase of use and could therefore be classed as persistent users. This limited number impacted on the amount of data available for the analysis and consequently the findings presented in this section are not as extensive as was the case with mephedrone. However, the accounts of these two participants were rich enough to provide an in-depth understanding of how and why they persisted in their use of synthetic cannabinoids.

Occasional use of synthetic cannabinoids

Ryan and Josh were the only participants who reported that they persisted in using synthetic cannabinoids after their initial experimental phase of use of these substances.

Ryan had a history of long-term, problematic use of heroin and mephedrone. He started using synthetic cannabinoids after spending fifteen months in prison, during which time he managed to get clean off both heroin and mephedrone. When he got out of prison he was on a Suboxone prescription, which contains buprenorphine – an opiate substitute – and Naloxone – an opiate blocker. When asked to describe his current pattern of drug use, Ryan explained that he was using natural cannabis on a daily basis and synthetic cannabinoids occasionally, two or three times during a week. It is clear that at this moment in time, his primary drug of choice was cannabis, whereas the synthetic cannabinoids were secondary substances in his repertoire of drug use:

'Marian: Have you used any of these [NPS] in the past?

Ryan: Yeah. I used to be on heroin and m-cat, but I went to prison, like. Six months ago I got out. And I was in prison for fifteen months... that was for a burglary to get heroin. So I went in, came out... I stayed clean off meow... I haven't gone back on the heroin or meow. I put myself on a blocker script – Suboxone. And they've been doing [me] well. I just have a joint each day and that's it. I just have the odd joint [of cannabis]. But the legal high, now, that 'Spice', that's addictive. 'Exodus', that's it. Blue, 'Blue Exxy' [Blue Exodus – a brand of synthetic cannabinoids].

Marian: Black Mamba [which is another popular brand of synthetic cannabinoids]?

Ryan: No, I don't smoke the other ones. Just this, the blue one.

Marian: When did you start using?

Ryan: When I came out [of prison] this time. It was August last year when I start[ed] using it. I don't do it every day. I smoke weed every day and only have that Exodus like twice, three times a week.' (Ryan, 24 years, former heroin user)

Problematic use of synthetic cannabinoids

Ryan remembered that he had a period of time that lasted for a few weeks when his use of synthetic cannabinoids became problematic. He explained that during this period of time he used synthetic cannabinoids every day and in considerable amounts (i.e. 'two-three ten pounds bags a day', which in terms of quantities would be between 7 and 10 grams per day). Moreover, Ryan explained that he developed an addiction to these drugs, which he regarded as both physical and psychological. From his account, it also becomes apparent that during this problematic phase of synthetic cannabinoids use, these drugs became Ryan's primary drugs of choice, completely replacing the herbal cannabis from his repertoire of drug use:

'Ryan: I've had a time when I smoked it for like weeks in a row, every day. Then, when I came off it, I felt like I need it and that.

Marian: How much were you using? Can you remember?

Ryan: A couple of bags a day, 2-3 ten [pounds] bags a day.

Marian: Quite a lot.

Ryan: Yeah.

Marian: Was it just Exodus, or was it anything else as well?

Ryan: Exodus and Vertex [both synthetic cannabinoids].

Marian: Both of them smokeable?

Ryan: Yeah, yeah. Both of them.

Marian: Can you say whether you had been dependent on it?

Ryan: Yeah, I was dependent on it.

Marian: Yeah? Was it a physical dependence or a mental one? Or both?

Ryan: Both, both, I'd say.' (Ryan, 24 years, heroin user)

Like Ryan, Josh also had a previous history of long-term heroin and mephedrone use. For this participant, the synthetic cannabinoids he was smoking regularly had an important impact on his overall pattern of drug misuse. More specifically, the 'Blue Exodus', which was the brand of synthetic cannabinoids he used problematically, became his primary drug of choice and it completely replaced heroin as the top substance in his repertoire of drug use. However, during the same period of time, Josh reported that he was also using methadone on prescription. It is not clear from the interview whether the fact that he had opiates in his system (because of the methadone) facilitated his complete move towards the synthetic cannabinoids, but this is certainly a possibility. He reported that his current use of synthetic cannabinoids was

problematic and characterised by dependent, daily use. This is how he described his pattern of use:

Josh: I was on heroin, but now I'm on methadone, which is a [heroin] substitute, and Exodus, the 'legal high'. It's physically addictive, like I've got to [use it], or else I can't work. Like unless I've had something before work, I couldn't go and work. I don't know, it's ruined my life, to be honest.

Marian: What happened with your heroin use? When you started taking 'Exodus'? Were you still using heroin and then progressed gradually to these new ones?

Josh: No, I didn't progress [gradually]. I stopped taking gear [i.e. heroin] and just used the 'legal high'.

Marian: For how long have you been smoking it?

Josh: Two months. That's all.

Marian: What about the quantity?

Josh: I'm smoking 3 grams pouches a day and it's costing like twenty pounds a day and that's really tough.' (Josh, 28 years, heroin user)

Impact on the overall repertoire of drug use

As can be seen from the above accounts, the patterns of synthetic cannabinoids use of these two participants were complex. Even though it could be clearly distinguished between an occasional and a problematic type of use of these substances, it would be a mistake to try to place each participant into either one of these classes. Ryan's case was the most symptomatic of the complex nature of these patterns of use, as he was both an occasional and problematic user of synthetic cannabinoids at different moments in time. Another aspect that could be drawn from these users' accounts is the fact that the weight of the impact these substances had on these individuals' overall repertoire of drug use depended largely on how they used these drugs. In the case of an occasional type of use, the synthetic cannabinoids did not produce a significant impact on the drug user's overall pattern of drug use and were regarded as secondary substances. However, when the drug users developed a problematic pattern of synthetic cannabinoids use, they completely stopped using their primary drug of choice and replaced it with these new drugs.

Drug combinations involving synthetic cannabinoids

If in the case of mephedrone participants often reported using this drug concurrently or simultaneously with other illicit drugs such as heroin or amphetamine, the drug users who persisted in using synthetic cannabinoids did not describe similar patterns of use. Rather, Ryan and Josh both explained that they did not use to consume 'Spice' products in combination with any other illegal drugs. However, as Ryan explained, the 'joint' of synthetic cannabinoids he smoked also contained tobacco:

Marian: How exactly do you use it [the synthetic cannabinoids]?

Ryan: You just like set the skins up, put a little tobacco in, sprinkle like the weed or Exodus on top, roll it up like a big fag and you smoke it then.

Marian: Are you taking them [cannabis and Exodus] at the same time?

Ryan: Oh, no. Not like both in one joint. If I ain't got cannabis, I'll have 'Exxy'. If I don't have 'Exxy', I'll have cannabis, just like that.' (Ryan, 24 years, heroin user)

From the data available in this study it is not clear whether this practice of mixing synthetic cannabinoids with tobacco in the same 'joint' was wide spread among the population of problematic drug users I interviewed. However, given that a similar combination is very common with regard to the use of natural cannabis (see for instance, Hammersley and Leon, 2006; Winstock and Barratt, 2013) it seems that this was highly probable in the case of the use of synthetic cannabinoids as well.

Route of administration

Without exception, all the participants who ever used synthetic cannabinoids reported a single way of consuming these drugs when they first tried them, namely through smoking. Unlike in the case of mephedrone, participants who developed occasional or problematic patterns of use of these drugs maintained their initial administration route throughout the entire period of time while they used these substances.

Summary

The above sections revealed that as in the case of mephedrone, those participants who continued to use synthetic cannabinoids after their initial experimentation displayed two patterns of use of these drugs: occasional and problematic. During a period of occasional use of synthetic cannabinoids, these substances were regarded as supplements to the main drug of abuse, while during a problematic phase of use the synthetic cannabinoids became these drug users' primary drug of choice. Participants did not use 'Spice' products either concurrently or simultaneously with other illicit drugs, but they did report that they mixed synthetic cannabinoids with tobacco in a joint to smoke these drugs. Finally, all participants explained that their only way of consuming synthetic cannabinoids at their initiation was through smoking them, an administration route which they maintained during their persistent phase of use of these substances.

Motivations for persistence in the use of synthetic cannabinoids

Having covered the issue of *how* Ryan and Josh persisted in their use of synthetic cannabinoids, the current section looks at the reasons *why* these two problem drug users continued using these NPS.

Enjoyment of effects

Josh suggested that one of the reasons why he persisted in using synthetic cannabinoids was the fact that he enjoyed the effects produced by these substances. When he was asked to discuss further about the reasons why he appreciated these drugs so much, he used a comparison with heroin. Josh explained that he liked ‘Exodus’ (i.e. the brand of synthetic cannabinoids he was using) because its effects were similar to those produced by heroin, but they lasted longer. He also mentioned that due to his prolonged use of heroin and the consequent tolerance that his body built for this drug over time, whenever he used it he was not able to feel the euphoria produced by it anymore. However, due to its higher potency, ‘Exodus’ was able to produce consistently pleasurable effects every time he took it. This is how he put it:

Josh: I’ve moved on to legal highs now because they’re so strong they can knock you out and I don’t have to think about heroin.

Marian: So that’s the reason why you use them?

Josh: Yeah. And it lasts for longer the buzz, [it] does. And it takes you to the place where, when you’re under the influence of heroin, you’re going into like a trance, and you get that off the ‘legal high’. You get that trance. It will only last for twenty minutes but you get that, and that’s what you’re always looking for in heroin. You’re always looking for that, that bit. And in the end you don’t get it anymore so you’re always looking for it. But you get so used to it you forget about it. But with the ‘Exodus’ you find it then. So when you smoke it, it happens all the time. It’s so strong it happens all the time. ‘Exodus’ is the strongest. The strongest version is the ‘Exodus’. You’ll always go for the strongest version of it, you know?’ (Josh, 28 years, heroin user)

Other participants also reported that problem drug users they knew were attracted by the potency of the synthetic cannabinoids available on the market, which were reportedly much stronger than the illegal herbal cannabis. Gary, a current heroin user reported that the strength of ‘Spice’ was what attracted one of his friends to synthetic cannabinoids, who ended up developing problematic use of these drugs:

*Gary: My mate, I’ve got an old very good mate of mine and he loves it [the Spice]. He can’t get enough of it. And I say to him: ‘You’re f***ing mad’*

Marian: Why would he choose that?

Gary: The buzz is stronger than [that produced by] weed, even skunk. I think they’re just looking for that stronger buzz.’ (Gary, 47 years, heroin user)

Drug experts supported the idea that problem drug users enjoyed the effects generated by the synthetic cannabinoids because these were stronger than what they were used to getting from other illegal drugs available on the market. Eric, the manager at ‘Catfield’ explained that he often asked himself why people would choose to use synthetic cannabinoids when the strongest version of herbal cannabis, ‘skunk’, was readily available. He subsequently realised that the answer was the potency of the synthetic versions of cannabis:

‘It [‘skunk’] was readily available, but then the realisation came in that skunk wasn’t as strong as the cannabinoids. So people started to experiment with cannabinoids recreationally and then problematically using the substance.’ (Eric, drug service manager)

Addiction

Ryan explained that despite their potent effects, which were appreciated by many problem drug users, he did not particularly enjoy how he felt when he was smoking synthetic cannabinoids. Instead, the reason why he continued using these drugs was because he ‘needed’ it to function normally:

*‘Ryan: But the ‘Exodus’ is much stronger than cannabis. It gives you like a really stoned head, you feel paranoid. Some people do, I don’t. But it just f***s your head up.
Marian: What do you prefer? If you had to choose between weed and ‘Exodus’?
Ryan: Oh, I’ll have cannabis, weed.
Marian: Why?
Ryan: Because if I smoke a joint and I’m outside, I can like walk around normal. But if I smoke a joint of ‘Exodus’, it just makes you paranoid, you wanna go home and stuff. It’s not that nice. I don’t know why I smoke it, like. I mean I know why: coz I need it, like.’ (Ryan, 24 years, heroin user)*

Rhys, a 42 years old long-term amphetamine user supported Ryan’s opinion that someone could get addicted to a substance even if he or she does not particularly enjoy the effects of it. This is what he had to say about a few of his friends who found themselves in a similar situation as Ryan’s:

*‘Some of the guys my age were doing it [synthetic cannabinoids] in prison lately. They don’t seem to be enjoying it at all. Even when they come down off it, they go: ‘F***ing hell, that was horrible.’ But it seems to be so addictive that they’ve got to do it again. It must be horrible being addicted to something that you don’t like.’ (Rhys, 42 years, amphetamine user)*

Josh remembered how he used to be reluctant regarding the addictiveness of the synthetic cannabinoids, mainly because he experienced the heroin withdrawals and thought that there could be nothing that comes near to a similar level of intensity. However, after he got addicted

to these NPS himself, he admitted that the heroin withdrawal symptoms were in fact very similar to those generated by synthetic cannabinoids:

*‘Josh: But I remember bumping into someone and them saying: ‘Oh, I’m smoking legal highs’ [i.e. synthetic cannabinoids] and they said they had withdrawal symptoms off it and I laughed. I said ‘You don’t know what f***ing withdrawal symptoms [are]... you don’t know what a cluck is. Because I’m on heroin and you’re not. No way that could give you a cluck [similar to what] I’m on’. But it really does, it really does. I’m smoking it now and it, I didn’t smoke this morning and look at me now: I’m sweating. I’m sweating now. I wouldn’t be surprised, right, if it’s synthetic opioids in it. Because it honestly does feel like a withdrawal symptom from, from heroin.*

Marian: So the withdrawal is similar?

Josh: Similar, very similar. Not very similar, like the aches and pains aren’t the same, but it’s similar in the ways of, you feel very sick. You feel like you want to vomit and all that is there. It is bad. That’s the only thing I can say about that.’ (Josh, 28 years, former heroin user)

The addictive potential of synthetic cannabinoids was also mentioned during the interviews with drug experts. Anthony, a drug service manager who had direct contact with many problem users of heroin who started using synthetic cannabinoids, explained that it did not take long for these individuals to develop an addiction to NPS and that the pains and aches generated by the withdrawal symptoms of these new drugs were similar to those felt in the case of heroin. He also insisted that the addiction itself to synthetic cannabinoids was not different at all from the heroin addiction. This is how he put it:

‘I spoke to a number of heroin users who hadn’t taken it [the synthetic cannabinoids] seriously, if you like. But they have quickly developed a habit with smoking synthetic cannabinoids and they were describing the withdrawal off it in almost apocalyptic terms, certainly at least on a par with heroin withdrawal. The use of synthetic cannabinoids would make them look like day-to-day heroin users. They behaved like heroin users: they would get up [at] 4 o’clock in the morning, they weren’t sleeping anyway, they get up at 4 o’clock to try and score. They would get involved in quite serious crime to pay for it. They were walking around looking like zombies. They weren’t injecting it but there were lots of hospitalisation experiences. They are experiencing a serious addiction. We’re talking about quite considerable problems in terms of a physical and psychological withdrawal that was kind of on a par with [heroin]. If you didn’t know what they were talking about, you would think they were describing a heroin withdrawal.’ (Anthony, drug service manager)

Non-detectability of synthetic cannabinoids through routine drug tests

The fact that synthetic cannabinoids were not detectable through routine drug tests was one of the most cited reasons why problem drug users started experimenting with these substances. However, Josh indicated that this was not only the reason why he started, but also why he persisted in the use of these drugs. He reported that he was continuously taking synthetic cannabinoids because he was on methadone maintenance treatment and tested regularly for the

presence of opioids in his body. The NPS were not only undetectable in these tests, but they also provided Josh with an euphoria which he described as being similar to the one generated by heroin:

Josh: I'm with an agency now where I have methadone liquid, but I still look for that buzz. And I can't take heroin because I get tested all the time so I go and get the legal high 'Exodus' and I have a kind of treat.

Marian: But is it working with methadone [do you feel the buzz of 'Exodus']?

Josh: Yeah.

Marian: So that's the main reason why you switched to this, because you are in treatment.

Josh: Yeah. I looked for something similar, to give me a similar buzz. And it's undetectable.' (Josh, 28 years, heroin user)

Drug experts generally supported the point made by Josh. Anthony, for instance, who was a drug service manager at the time of the interview, explained that in his view, heroin users were attracted by synthetic cannabinoids while they were under opioid substitute treatment because the routine drug tests were not able to detect the use of these NPS:

'Some of the continued use of 'Spices' is because there are these drugs screens [tests]. We came regularly across people who were using these drugs [synthetic cannabinoids] just because they were only being tested for heroin. Most of people who use them drugs kind of think like that.' (Anthony, drug service manager)

'Spice' use in prison transferred outside

Drug experts advanced the idea that some problem drug users regarded the synthetic cannabinoids as 'prison drugs' and therefore regarded their use as limited to the prison environment. However, due to the high potency of these drugs compared to the herbal cannabis available outside prison, many drug users who left prison decided to continue using the synthetic cannabinoids after their release. This is how Anthony, the same drug service manager cited earlier, explained this:

'Anthony: What has happened, I picked this up while speaking to a group of older heroin users. We found out that synthetic cannabinoids were regularly used on the streets. Partly because they've been popular prison drugs for probably five or six years. But over the last year the use of it has grown enormously so it is virtually the only drug in prison now.

Marian: So would you say they carried this pattern of use outside the prison as well?

Anthony: Yes, this is what I'm describing. It was in hostels and places like that that this came out. There used to be a stigma about the synthetic cannabinoids in that they would look down on them. That was something that they would only use in prison, just a prison drug to avoid being drug tested and being caught. Then they would go back to proper cannabis. But that all changed when they went out of prison. Some of them got in when the cannabis outside was much stronger and much cheaper, but then they went out and realised that now the cannabis doesn't have any effect on them compared to smoking this stuff.' (Anthony, drug service manager)

It is important to note that this hypothesis advanced by drug experts was not reflected in either Josh or Ryan's accounts, despite the fact that both of them spent time in prison recently. These participants reported that their use of synthetic cannabis started outside prison and it continued in the same environment. However, this does not make the scenario proposed by the drug experts less plausible.

Summary

From the entire sample, only two participants reported that they persisted in their use of synthetic cannabinoids and these individuals offered rich accounts explaining their decision to continue using these drugs. Due to the limited data available for analysis on this topic though, the list of motivations for persistence in the use of synthetic cannabinoids identified in the previous sections is unlikely to be exhaustive. It is possible that discussions with more problem drug users who used 'Spice' products past the experimental phase would provide a more rounded picture on this issue.

Conclusion

This chapter examined in detail the accounts of those participants who, after their initial experimentation with mephedrone and synthetic cannabinoids, went on and used these drugs more regularly. Using a career perspective on drug use, it could be argued that these individuals entered the persistence phase of their use of these NPS (Shaw, 2002).

The discussion initially focused on *how* problem drug users continued using these drugs and two patterns of use surfaced as a result: occasional and problematic. Depending on these types of use, the participants' repertoires of drug use were affected in different ways. During the period of time when drug users consumed mephedrone or synthetic cannabinoids on an occasional basis, these drugs constituted mere additions to these individuals' existing menu of drugs they consumed. However, these NPS had a much more significant impact when participants used them in a problematic pattern. In this case, mephedrone and synthetic cannabinoids became their main drugs of choice, replacing the problem drug users' existing primary drug of abuse (e.g. heroin, cocaine, amphetamine, cannabis).

Participants who persisted in using mephedrone also reported using this substance simultaneously and consecutively with other illicit drugs, such as heroin and amphetamine. The simultaneous use of mephedrone in combination with these illegal drugs was motivated by the participants' desire to increase their overall drug-taking experience. In terms of a consecutive use, heroin was often used within this group of problem drug users after an episode

of mephedrone consumption, in order to suppress or manage the comedown effects of mephedrone. There were no similar patterns of use reported with regard to synthetic cannabinoids, which were not used in combination with any other illicit drug.

In the case of synthetic cannabinoids, no differences in the administration route were reported between the initial and the subsequent use of these substances: drug users smoked the synthetic cannabinoids when they first tried them and maintained the same administration method after that. In the case of mephedrone, participants reported several ways of consuming this drug, such as: intra-nasally, orally ingested, smoking and intravenously. Regardless of which of those methods was used first, some participants maintained it during persistence, mainly on safety-perception reasons. Others though moved to a different administration method when they started using mephedrone persistently. The most common progression in this sense was from initially snorting the drug to injecting it intravenously, mainly because this provided users with a better and quicker euphoria.

The other objective of this chapter was to map out the motives *why* participants decided to continue using mephedrone and synthetic cannabinoids beyond their initial experimentation with these substances. The problem drug users cited the following explanations for their continued use of mephedrone: enjoyment of this drug's effects, addiction to the substance, self-medication, cost-efficiency and availability. When asked to explain why they continued using synthetic cannabinoids, participants reported they did so because they enjoyed their effects, became addicted to them, and because these substances were not detectable through routine drug test. Additionally, the drug experts suggested that those individuals who started using synthetic cannabinoids in prison might have continued this pattern of use outside it, when they realised that the effects of these drugs were much more intense than those produced by the herbal cannabis bought off the streets after their release.

The data from interviews with both drug users and drug experts revealed that, for the overwhelming majority of problem drug users in this research, this phase of persistent use of either mephedrone or synthetic cannabinoids was temporary. The next natural issue to investigate is how and why NPS users stop using these substances and the impact this has on their overall patterns of drug use. These issues are examined in depth in the following chapter.

CHAPTER EIGHT - Desistance from the use of NPS

Introduction

In the previous two chapters I covered the first two stages of participants' use of mephedrone and synthetic cannabinoids, namely the initiation and the period of persistent use. In this chapter I move on to consider desistance, or ceasing use of these substances. The process of stopping the use of drugs has received significant attention in the drug misuse literature in the last few decades, especially from researchers who chose to approach this phenomenon from a 'career' perspective (McIntosh and McKeganey, 2001). These authors believe that the cessation, termination, or 'desistance' is the last stage in someone's career in drug misuse. The concept of 'desistance' was developed and used mainly with regard to offending and deviance in general (Maruna, 2001; Laub and Sampson, 2001), but it can also be applied to the misuse of drugs in particular (Best et al., 2010). In the latter context, desistance was considered to be the cessation of the use of drugs and this is the definition that will be used here. Desistance is usually examined with regard to the termination of use of all drugs from an individual's repertoire. However, in this chapter I do not consider desistance in this general way, but instead I focus specifically on desistance from the two drugs of interest here: mephedrone and synthetic cannabinoids.

While some participants took the decision to stop taking these drugs after only one or a few consumption episodes, others stopped after becoming persistent users. This distinction is important because generally, those who stopped after a few episodes of use provided different explanations for their decision to desist compared to those who stopped after a sustained period of use. Therefore, these two groups of users are considered separately here. Authors who studied desistance from drug use also stress that reasons for the initial decision to stop using drugs are generally different from the factors that enabled drug users to maintain abstinence (Humphreys et al., 1995; Best et al., 2008), and participants in this study provided examples of each of these.

Consistent with the previous two chapters, the current chapter is divided into two main sections: the first one focuses on mephedrone, and the second one on synthetic cannabinoids. For each of these drugs, I discuss separately the reasons for *desistance* provided by participants who: a) stopped immediately after initiation and b) stopped after a sustained period of use. Subsequently, I consider the reasons for *maintaining desistance*, which, according to the

available literature, and also the data from the interviews, are generally different from the reasons for the decision to desist.

Desistance from the use of mephedrone

All participants who used mephedrone reported that they stopped using it either before I started my research, or by the time the data collection ended. However, the length of time they had been abstinent was not possible to measure because respondents (especially those who stopped before I conducted the interviews) were not clear as to when they ceased using mephedrone.

The period of time between the first use and cessation varied depending on the pattern of mephedrone use developed by these individuals over time. Moreover, the interviews revealed important differences in terms of the desistance motivations between those who stopped shortly after initiation (i.e. after one or just a few consumption episodes) and those who stopped after a sustained period of use (i.e. occasional and/or problematic users). The former group focused their explanations on the psychopharmacological effects of mephedrone, while the latter provided much more complex motivations for desistance. Both of these are addressed separately below.

Reasons for desisting shortly after initiation

Just over a third (8/23) of those participants who ever tried mephedrone reported they stopped using this substance after only one or just a few episodes of use. These individuals' explanations for not using mephedrone anymore were exclusively related to the psychopharmacological effects of this substance, hence this section is not as detailed as the one that explores the motivations for stopping among those who did go on and use this drug persistently.

Unpleasant effects of mephedrone

When asked to explain the reasons why they stopped using mephedrone shortly after initiation, these participants consistently reported that they did not enjoy this drug's effects, or had a bad experience when they had used it for the first time. For instance Gary, a long-term heroin user who reported that he had taken mephedrone only once, explained that he did not like the 'buzz', nor did he enjoy the comedown after using mephedrone:

'Once I've tried meow and it made me feel like a bag of shit to be honest. It don't interest me and I can't ever see me taking it to be honest, because I have no interest in it whatsoever. It just doesn't appeal to me, it's not my buzz, it's not my thing, you know? I don't like to be sitting there feeling wired, hallucinating, you know what I mean? On meow, it makes you pull jibs, doesn't it? I don't see any enjoyment in that. And as I

said, the comedown I felt was terrible. That's why I'd never take it again, you know? It was not just the buzz, it was also the comedown that put me off.' (Gary, 47 years, heroin user)

Some participants did not enjoy the effects of mephedrone because it was a stimulant drug and preferred depressant drugs instead. Others said that they did not necessarily dislike the effects of mephedrone, but, if given the choice, they would go for depressant drugs because they enjoyed more this latter type of drug experience. *'It's not my cup of tea'* was how these participants articulated their motivation for stopping mephedrone use. Below are examples of each of these two attitudes:

'It wasn't my cup of tea, you know? I've tried it once and that was it. I didn't like it, I didn't like it at all. It wasn't my cup of tea. It's an upper, I do downers, not uppers.' (Gavin, 52 years, heroin user)

'Marian: Did you enjoy the experience off it?

Archie: A sort of, but I won't do it again.

Marian: Why?

Archie: It's just not my cup of tea. I prefer downers.' (Archie, 28 years, heroin user)

Effects not suitable for lifestyle

Other participants reported that they did enjoy the pharmacological effects of mephedrone, but there were other reasons why they did not like this substance and therefore stopped consuming it soon after they tried it first. Rhys, a 42 year old amphetamine user who also had a past history of heroin and heavy alcohol use, explained that what he did not like about mephedrone was the fact that its effects were not compatible with his lifestyle. In a private conversation during the micro-ethnography, Rhys told me that he felt vulnerable while under the influence of mephedrone because in the euphoric state of mind produced by this drug he could not protect himself from other fellow drug users who might want to rob him. Moreover, during the recorded interview with him, Rhys told me he did not continue using mephedrone because the 'high' produced by this drug did not allow him to be efficient in earning money through activities such as shoplifting. This is how he put it:

'Marian: Have you ever tried meow?

Rhys: Yes, I did. I had to admit it was a nice rush off it, but it didn't make to wanna buy it again.

Marian: Why? How did you feel?

Rhys: Euphoria, you know? I could see what people saw in it. But it was still a bit party-ish, party-like, not an everyday-like drug. Not something you wanna do when you have to go out and earn money. If you go out to shoplift or whatever you do, it's too airy, fairy, you know?' (Rhys, 42 years, amphetamine user)

To sum up, those who stopped taking mephedrone shortly after their first experimentation with it explained that their decision not to use this substance again was informed by an assessment of the psychopharmacological effects produced by this drug. Those who did not enjoy the intrinsic effects of this substance, experienced negative effects after they used it, had a preference for depressant drugs, or perceived its effects as non-compatible with their lifestyle, were less likely to enter the persistent phase of use of this drug.

Reasons for desisting after persistent use

Almost two thirds of those participants who ever tried mephedrone (n=15) went on to use this drug more regularly. As opposed to the short-term mephedrone users, these participants provided a much more complex picture with regard to the reasons why they decided to desist from using this drug.

The literature on the topic of desistance from drug use is consistent in acknowledging that the initial decision to stop using a substance and the subsequent maintenance of this decision are underpinned by different factors (Stall and Biernacki, 1986; Humphreys et al., 1995; Best et al., 2008; Best et al., 2011), hence these are presented separately in the following two sections. When asked specifically about what influenced their initial decision to desist, participants often considered a wide range of motivations, which are discussed in more detail below.

Physical harms

Consistent with previous studies that looked at the desistance process among drug users (Sobell et al., 2000; Carballo et al., 2007; Best et al., 2008), the problem drug users interviewed in this research reported that becoming aware of the negative physical effects of continued use of mephedrone played an important role in their decision to stop. This is how Paul, a former heroin user and now a peer-mentor, put it:

'The veil was lifted. People started realising what damage it [the mephedrone] was actually doing. And not just the sort of the normal damage that drugs do, but a more profound physical damage.' (Paul, 34 years, former heroin user)

Drug experts also insisted that problem drug users reached a moment when they became aware of the serious physical damage inflicted by the use of mephedrone and suggested this prompted their decision to consider ceasing the use of this substance:

'I think people just thought, after a while, 'Oh, this just isn't for me, this is a horrible drug'. They just came to that realisation. It brought physical health problems to the surface. They had terrible problems health-wise and I think [because of] all that, they

just made a conclusion of: 'Actually, I'm better off stopping using it.' (Caryl, drug policy)

In terms of the specific negative physical consequences of continued mephedrone use which they experienced themselves, participants cited such issues as: chest, kidney and heart problems, serious damage of injecting sites, and rapid and significant weight loss. Moreover, several drug users explained that they took the decision to stop using mephedrone after witnessing the damage inflicted by mephedrone on some of their acquaintances. This is how Paul described the situation:

*'People seeing users [of mephedrone] that went flat out on any other drugs and walked away, seeing them in wheelchairs after taking meow. When meow came around, people weren't walking away, they were hopping away or f***ing wheeling themselves away. So people started to realise they don't know the short or long term effects of it. They see the short term effects: death, amputations.'* (Paul, 34 years, former heroin user)

Psychological harms

Becoming aware of the serious psychological problems generated by continued use of mephedrone was another reason often cited by participants when they were asked to explain why they stopped using this substance. In this context, the problem drug users spoke about: 1) the rapidity with which they developed psychological problems, 2) a sense of loss of their mental stability (i.e. mood swings), 3) elevated levels of aggression, and 4) judgement impairment.

In the past and with regard to other drugs such as heroin, crack cocaine and amphetamine, it took these drug users a significant amount of time until they experienced any negative mental effects. However, in the case of mephedrone this happened much more quickly. Paul, a long term heroin user who was now a peer-mentor and in daily contact with many problem drug users, had this to say about this issue:

'I know a couple of people who've gone into drug psychosis after a few months of daily use of meow, that has taken other people years to develop on other drugs, especially cocaine and amphetamine. I know people who've used crack and amphetamine and it's taken [them] years to develop psychosis.' (Paul, 34 years, former heroin user)

Referring to the psychological damage inflicted by mephedrone, participants also talked about frequent and rapid mood swings while intoxicated with this substance. This is how Linda, a long-term heroin user, described this:

'I felt, when I took it, one moment [I could be] very lovely to people, loved-up, or I could switch to be[ing] really nasty the very next moment. And that's what stopped me doing it, yeah.' (Linda, 46 years, heroin user)

Participants also reported that while they were using mephedrone they became more aggressive, both physically and verbally. This is how Clint, a long-term amphetamine user, described this type of situation:

'And people would get more violent on it. You can ask all the [drug] workers downstairs [in the drug service]. When we were coming out on it, they were scared.' (Clint, 40 years, amphetamine user)

Participants often mentioned that mephedrone impaired their judgement. Reflecting on this issue, these individuals reported that they started to get involved in risky behaviours such as disregarding safe-injecting advice and engaging in unprotected sex with unknown partners, things they would not normally do. These participants insisted that these instances of loss of control were distressing and that they had a significant contribution to their decision to stop using mephedrone. Linda provided an example of this kind of situation when, after having used mephedrone, she shared injecting equipment with someone who was infected with the Hepatitis C virus and subsequently found out she had also contracted it. She insisted she had not done a similar thing before:

'I felt like I was gonna have a heart attack the very last time I had it. My jaws went out of control, my eyes were wide open, so obviously it affects the nervous system, the central nervous system, where it says [to] the brain 'Do this, do this'. It takes control over everything, you can't stop it. I had found out that I had hepatitis C and I know it was from someone else whose needle I've used when I was on meow. Never done it before, but that time I did meow I contracted hepatitis C.' (Linda, 42 years, heroin user)

Drug experts like Mark, a senior drug worker, also highlighted this situation of mephedrone users losing control over their behaviour and consequently getting involved in risky behaviours, which they normally avoided or were able to control:

'There are two people who have used our service locally and I'm really well connected with, both of them HIV positive, who came to me and said, partly referred by their key worker in fact: 'Can we have a conversation with you? We are really, really scared about our behaviour while we are injecting mephedrone.' So, these are two people, a couple, who have always been very considerate about their injecting, particularly with other people, because of their HIV status.' (Mark, drug service manager)

Tired of lifestyle

When asked why they stopped using mephedrone, several participants also talked about being tired of the mephedrone lifestyle. Rob is an example of such problem drug users who reported that they had become fed up with their lives because of the persistent use of mephedrone and decided that they needed to act on that:

'You get tired of that and it's time for a change. I got tired of looking rough, continuously dribbling nose, the stinking, smelling like a hospital all the time. Sometimes I tell people it wasn't so much the drugs I wanted to give up, it was the lifestyle that went with it. It was strange.' (Rob, 32 years, former amphetamine and cocaine user)

Some drug users reported that becoming tired of the mephedrone lifestyle was related to their age. These individuals often reflected on their previous drug-free status and decided they wanted to go back to that situation. This is how Clint described this:

'Marian: Would you consider using again? Meow?

Clint: No.

Marian: Why?

Clint: Why? I'm nearly forty now and I've done it all, I've worn the t-shirt and now I'm tired of it all. Now I just wanna be like everyone else, instead of trying to be different.' (Clint, 40 years, amphetamine user)

Fear of mephedrone

What also transpired from these drug users' accounts was the fact that they developed a sentiment of genuine fear of mephedrone, which also contributed to their decision to consider ceasing the use of this substance. Paul, who was a former heroin user who was now a peer-mentor, reported that he witnessed this fear among the problem drug users with whom he was in daily contact:

'But then people using [meow] seeing other people using losing legs, arms, lives, and doing more damage quicker than all of their previous drug use up to that point. I think it scared a lot of people. I think there's a big fear factor there.' (Paul, 34 years, former heroin user)

Many participants, like Clint below, expressed explicitly this feeling of dismay regarding mephedrone:

'I know one or two people that I know have lost their legs over injecting in their legs and that. That's made me scared. I think about it and it scared me as well.' (Clint, 40 years, amphetamine user)

For some drug users, the sentiment of fear of mephedrone was prompted by the realisation that they did not know what the content of mephedrone was:

'Marian: Do you know whether meow was actually mephedrone?

Jane: No, I wouldn't have a clue. You could be buying anything, to be honest with you. I didn't know what was good and what was bad of it. That's why I didn't take it for long, 'cause I didn't know what I was sniffing. I know with the heroin, that's bad as well, but you got an idea what you're taking when you're taking that. You knew it was cut with things, you know that. But meow it's, it's quite a scary drug to me.' (Jane, 42 years, former cocaine and heroin user)

For others, this fear was caused by the aforementioned judgement impairment produced by mephedrone, which made drug users feel a total loss of control while intoxicated with this substance. Kevin, one of the experienced drug workers at Catfield, where I did the micro-ethnography, explained that this was something drug users did not enjoy:

'If they're not in control, they tend to panic. That's what I can see when I talk to them [to the mephedrone users]. They've actually really been scared and frightened because they weren't in control at all. They're not happy at all with that.' (Kevin, drug worker)

Spoiled identity

These instances of total loss of control over their behaviour while intoxicated with mephedrone, along with the awareness of the serious physical and psychological harms inflicted by this drug prompted participants to reflect on their overall situation as drug users. These individuals acknowledged that their persona changed because of the use of this substance and that they consequently became someone that they did not recognise or like anymore. At this point, these participants decided that they needed to stop using mephedrone. This is similar to what Biernacki (1986), Granfield and Cloud (1996), and McIntosh and McKeganey (2001) found in their studies of recovering addicts. These authors acknowledge that the decision to stop using drugs was determined by the users' recognition that their identity had become 'spoiled', and hence unacceptable. In McIntosh and McKeganey's words: 'they had to change the pattern of their drug use in a major way in order to repair an identity that had become seriously damaged (2001:54)'.

Linda was a clear example of those participants who realised their identity had become spoiled because of their mephedrone use. In her own words: '*that's what stopped me doing it: 'cause I didn't like the person it made me become.*' Another similar, but more detailed account was provided by Rhiannon, who expressed a palpable feeling of unhappiness with regard to her new identity. She made it clear that her appearance and behaviour changed dramatically after using mephedrone, something that did not happen during her 19 year career of heroin use:

'And it affected me mentally. Like I'd do things and say things that were just so out of character. And then I couldn't remember saying them or doing them. My mother can tell you some stories [laughs]. It affected me mentally, yeah. Heroin took a lot from me, but mephedrone affected me in a different way. Just like the way it made you act, the way it made you behave. And it definitely changed me. I was a heroin addict, but I was still me. I would still have my personality and I'd go about living in my street, but I was still quiet and I really never had the police to my house. But when I was doing that stuff [meow], I was kicking off with everyone. Screaming, causing fights on the street, it totally changed my character. It made me paranoid, made me argue with all my friends,

I'd be fighting with my friends. It just really changed my personality.' (Rhiannon, 39 years, former heroin user)

Like Rhiannon, some participants reported that what they did not like about their new mephedrone identity was the fact that they started to get involved in serious criminal acts, which was out of their character. Clint, who was one of these interviewees, explained that he committed a burglary while under the influence of mephedrone, and stressed that this made him aware of how this substance changed him:

'I was doing that [mephedrone] twice, probably three times a day for months and months and months. Then I got caught doing that burglary and I went on bail and then I started to, started to like wake up a bit, like, you know? Because I've never done a burglary before and I was a bit scared, like, you know? 'Cause I've never done it, you know? And I don't like people who do burglaries. I was so off it, I don't even know why I've done it. Well, I know why: because of the drugs. I wouldn't have done it otherwise.' (Clint, 40 years, amphetamine user)

Drug experts also supported this idea that drug users became distressed by the apparent personality changes as a result of the use of mephedrone, and this led to their decision to stop using this substance. This is what Caryl, an experienced Welsh drug policy expert, had to say about this:

'The reports that we were getting: 'This person is unrecognisable', their persona changed, [it's] a completely different person. And these people have said, drug workers have said to me: 'This person was just unrecognisable. It was a totally different person to what we know.' Whereas they've been on heroin for years and they've never been like that. What they were saying was: 'I don't wanna be injecting that, because it gives you this thing I don't want, and it makes me be a person that I don't wanna be.' (Caryl, drug policy expert)

As seen in the previous sections, the problem drug users who took part in this research gradually became aware of the physical and psychological damage produced by mephedrone, became tired of the lifestyle, developed a feeling of fear towards this drug and acknowledged that their identity had become spoiled as a result of the continued use of this substance. This accumulation of factors led to the development of a negative image of mephedrone. A more detailed discussion about how this stigma developed, what it entailed and its implications follows below.

Mephedrone – a 'dirty' drug

As seen in Chapter Six, several participants explained that one of the reasons why they started using mephedrone was because there was no stigma attached to this new drug. However, when the harms mephedrone was able to inflict on those who used it persistently became apparent, things started to change. Unfortunately, the data collected here did not allow me to get a sense

of how long it took for the image of mephedrone to suffer this transformation. Nevertheless, participants consistently reported that within their community, mephedrone came to be regarded negatively. In Linda's words: *'[T]here's nothing good about it, nothing. And you can't paint it up, you know, to be good. 'Cause there's nothing good about it.'* This is how Alison continued her account regarding mephedrone's changing image within the population of problem drug users:

'But what I would say is that as a group, they [the problem drug users] largely talk in a quite negative way about mephedrone now.' (Alison, NHS nurse)

This stigma attached to mephedrone was evident during the interviews with problem drug users. When participants talked about this substance, they often referred to it as 'a dirty drug'. However, it became clear that the word 'dirty' meant different things to different people.

Some participants regarded mephedrone as a dirty substance because of its unpleasant smell, while others explained that the contaminated nature of mephedrone is what made them perceive this drug as 'dirty'. On many occasions participants reported that mephedrone was adulterated with dangerous products, such as glass and cement dust:

'I say it's dirty because of its smell. It smells vile. And the things that are in it, you've got to be careful as well, with certain people, with what they cut it with. I bought some meow a few weeks back and I thought I was overdosing. I thought I was going over or something. And when I checked it, it was cement dust, mixed with cement dust.' (Michael, 32 years, heroin user)

The drug experts added to the significance of the word 'dirty' which was associated with mephedrone by stressing that this had to do with the cheaper price of mephedrone compared to other traditional drugs like heroin and cocaine. Others, like Neil below, believed that drug users regarded mephedrone as a dirty drug because of its short-lived effects:

'Marian: Why do you think they call it a 'dirty' drug?

Neil: I think it comes back to the short acting of the substance, so that people need to re-dose a lot more frequently. So that could kind of aid the stereotype that they're an even more heavy-drug user because they're using more frequently, they're using more of the drug over a specific period of time.' (Neil, drug worker)

Finally, some drug users explained that the dirty nature of mephedrone was related to the way it made its users feel after they took the drug. Michael, a long-term heroin user who had a period of problematic use of mephedrone, had this to say on this issue:

'Michael: It's a dirty drug, it is.'

Marian: What do you mean by 'dirty'?

Michael: Compare a clean drug to a dirty drug. Heroin and M-cat in my opinion are dirty drugs: the way that it makes you feel, that way it affects you, it changes your colour

... When people say it's a dirty drug, it's not the drug itself that's dirty and mixed with shit and all that, like. It's the whole effect of the drug, you feel dirty. Obviously, you sweat off it, you smell, you get all scatty, don't wanna talk to people, you're unsociable. Like cocaine, or crack, even cannabis, you're, it's a more sociable drug. A drug like that you would call clean. But heroin, M-cat, when you take them you just don't want to talk to people, when you're scatty and all that.' (Michael, 32 years, heroin user)

The stigma attached to mephedrone itself was transferred to its users as well. It is well documented that long-term drug users are stigmatised by society (UK Drug Policy Commission, 2010), but it became apparent that with regard to mephedrone this labelling process also occurred from within the population of problem drug users (O'Neill, 2014), something previously described as the 'propensity by drug users to derogate other drug users' (Garfinkel, 1956:420). Participants often discussed existing hierarchies within this circle of individuals (Sutter, 1966) and in this context they placed mephedrone users on a par with, or even below, heroin users. Paul, a former long-term heroin user who was currently a peer-mentor, was one of the participants who stressed that mephedrone users were being marginalised by even the most stigmatised group of drug users – the heroin injectors:

'So there's a massive stigma. They're really considered, people who use meow I think are seen as being further down the rank. They're kind of like glue sniffers and solvent users. It's almost like they've kind of taken a step back, a sort of beginning again in their drug journey. What's the word? They sort of devolved by taking this other separate path, like. Yeah, it's weird. That's how I perceive people see them. There's a lot of people I spoke to, they've been injecting heroin users for a long, long time and they really do, don't go anywhere near to people who are using meow. That's what they say. 'I have nothing to do with that lot', you know?' (Paul, 34 years, former heroin user)

Following on from the above account, it also became apparent that the stigma attached to mephedrone and its users was used as a neutralization technique by problem drug users. Placing those who used mephedrone in a lower category enabled users of traditional illicit drugs such as heroin, crack cocaine and amphetamine to feel better about themselves and also, in a way, justify their own drug use without serious damage to their self-image (Copes, et al., 2014; Davidio et al., 2000; Furst et al., 1999). This is how Paul continued his account:

*'Marian: So you think they use this stigma as a coping mechanism, to justify their own drug use.
Paul: Yeah, absolutely. It's not as bad as. And the same thing with the heroin users. They can say: 'Yeah, I might be doing all this bad s*** but is not as f***ing bad as the s*** they're doing.' And again, I think it's just a defence mechanism, a justification.'* (Paul, 34 years, former heroin user)

Drug users tended to look down on those who used mephedrone because they continued taking this drug despite the clear indication that this was a very dangerous substance, whose track

record of harms was unquestionable. Consequently, these participants regarded mephedrone users as lacking intelligence:

'Marian: What would people say about meow users?

*Rhys: You know you've seen someone who's on his way to losing his arm or whatever, he's probably on a skateboard now with no legs or something like that, you know what I mean? Even though I've seen people losing limbs and that with heroin before, I think it's a kind of thing of intelligence, sort of thing like: 'Doh, if you carry on doing that, you're gonna f***ing die really soon.' This isn't just bullshit like you read somewhere, it's not just Youtube, this is fact. Sorry, people.'* (Rhys, 42 years, amphetamine user)

Mephedrone users were also labelled 'dirty' because they often broke some of the most important internal norms for the population of long-term drug users (Simmonds and Coomber, 2009). Earlier, Faupel (1987:395) acknowledged the existence of a 'distinctive set of ethical standards held in common by many 'junkies'', and also that these individuals often 'violate the ideal norms of their own subculture'. While under the influence of mephedrone, drug users frequently lost control over their actions and consequently found themselves in breach of these moral standards. As it became apparent during the interviews and the microethnography, mephedrone users often disregarded safe-injecting practices, did not dispose properly of injecting equipment, got involved in non-protected sex even though they knew they were carrying blood borne viruses, and started to commit crimes beyond what they regarded as acceptable. This is how Ryan, a former problem user of heroin and mephedrone, explained this:

'It's a dirty drug, it is. It makes you do nasty things, like some people rob their families when they're off it. I didn't rob my family off it, but probably I was coming close to doing it.' (Ryan, 24 years, former heroin user)

Phil, a drug service manager, expanded on this idea:

'Now, with the stigma around mephedrone, I think it's because of the behaviours that people are eliciting when they're on mephedrone. People describe mephedrone as a dirty drug because mephedrone users are not being very careful with the injecting practices, like leaving used equipment laying around, sharing needles. Yeah, that could be something that could detract people from using that.' (Phil, drug service manager)

The importance of this stigmatisation of mephedrone with regard to drug users' decision to stop using this drug was explained by Anthony, a drug service manager who did some research with problem drug users in the area where he was working. He explained that the stigma attached to mephedrone played an important role in the rejection of this drug within the population of heavy-end users:

'I actually think stigma is a major factor on why people [pause] I think it's more important than the law in terms of the rejection of drugs within a particular community and why people use them. From the research I've just done in B..., mephedrone came along and it just went right across the board. It kind of spread everywhere for a few

years. But then it virtually disappeared and you hear the same story time to time again: that it was a rejection from within the drug using community. They started looking down on it, they started seeing all the negative connotations with it rather than being the new ecstasy or something like that.’ (Anthony, drug service manager)

What Anthony described in the quotation above is something that Biernacki (1986) referred to as ‘negative contexting’. Biernacki explained that one of the strategies used by his sample of 100 ‘naturally’ recovered heroin users (i.e. without professional help) to enable them to stop using drugs was to constantly remind themselves of the negative consequences of drug use. The mechanism through which the problem drug users who took part in my study used the concept of negative contexting as a tool to stop using mephedrone was to label it as a ‘dirty’ drug.

Summary

From the discussion in this section it becomes clear that mephedrone and its users suffered a process of stigmatisation. Even though initially drug users regarded this new drug as a viable and preferable alternative to other traditional drugs, it gradually came to be viewed in negative terms within this population and it gained a reputation of being a ‘dirty drug’. This, along with the other factors discussed earlier, such as the awareness of the negative physical and psychological effects of this drug, getting tired of the mephedrone lifestyle, the fear developed by the users with regard to this substance, and the acknowledgement of the development of a spoiled identity as a result of the use of this drug, contributed to these problem drug users’ decision to cease using this drug. Our attention next focuses on the factors that helped those who decided to stop taking mephedrone maintain this decision.

Maintaining desistance from mephedrone

The factors that motivate individuals to stop using drugs are often different from those that enable them to maintain this decision and become drug-free in the longer term (Stall and Biernacki, 1986; Best et al., 2008; Best et al., 2011). This was also the case in this current study where interviewees generally identified distinct motivations for reaching abstinence from mephedrone and maintaining it, respectively. My intention in this section is to document how participants managed to maintain abstinence from mephedrone, but it is important to note that these individuals did not necessarily abstain from the use of all drugs. To be more precise, participants followed two possible avenues after desisting from the use of mephedrone. These individuals either returned to their previous drug using patterns (20/23), or stopped using drugs altogether and thus became drug-free (3/23).

With regard to why some problem drug users made the decision to stop using drugs altogether after their experience with mephedrone while others returned to their previous drug use repertoires, the data suggest this was mainly dependent upon the extent of these individuals' drug problems. Only those participants who reached what is often referred to in the literature as 'rock bottom' (Biernacki, 1986) stopped taking drugs altogether; the others simply removed mephedrone from the menu of drugs they took and resumed their former drug-using patterns. In an attempt to describe the 'rock bottom' state, McIntosh and McKeganey (2001:54) explain that '[f]or those who reach rock bottom, it is a matter of giving up drugs or of being destroyed. To carry on is unthinkable.' Rhiannon was one those participants who ceased using drugs completely after the mephedrone experience and this is how she described her 'rock bottom':

*'[Y]ou know when you hit rock bottom. My rock bottom was waking up in hospital with that heart infection and thinking: 'S***, I nearly died', I could have been dead. If my mother had left me 24 hours, I would have died in bed. So that realisation was: 'Wow, I need to wise up and do something now.' Since I moved home, there's about seven, you know the people I used to use with, around seven of them have died. And that's within the last year. And two have died within the last two weeks. And each time I just think: 'It could have been me'. It's not many left.'* (Rhiannon, 39 years, heroin user)

The distinction between those who went back to their previous drug-using patterns and those who became drug free after they stopped using mephedrone is important because the data collected here suggests that there are important differences between these two groups in terms of how they maintained desistance from mephedrone. Hence, I examine these two sets of individuals separately below.

Factors for maintaining desistance from mephedrone among continuing drug users

The first group I turn to are those participants who continued using other drugs after desisting from mephedrone use. When they were asked to explain what contributed to their sustained abstinence from mephedrone, these individuals talked about moving away from mephedrone-using friends or acquaintances, a constant reminder of the negative effects of mephedrone, and about how they perceived moving back to their previous repertoire of drug use as a safety measure. Each of these are explained below.

Moving away from mephedrone users

Consistent with the findings of Best et al. (2008, 2011), participants in this research reported that one of the most effective measures to ensure they remained abstinent from mephedrone was to move away from the circle of friends where this drug was available and used. Below

are just a few typical examples of users who stopped taking mephedrone and managed to sustain their desistance in this way:

'I'm not using meow anymore, no. I'm not around the same circle I used to be. It was around me and that's why I was taking it.' (Lawrence, 24 years, heroin user)

'I don't bother with the people that used to do it, so I've just gone off it. I think it's good.' (Angharad, 52 years, amphetamine user)

This process of distancing themselves from an environment conducive to continued mephedrone use was not always straightforward and in some cases it required some dramatic actions. For example, some individuals thought it would only be possible to stay away from their circle of mephedrone using friends through incarceration. Consequently, like in the example below, they committed a blatant crime in order to be apprehended by the police and sent to prison:

'I've tried giving it [mephedrone] up before. Coz I've give[n] up the heroin first and I tried giving that up, but it was just the people I was around and that, [they] kept doing it in front of me and that. And I just said one day, I said to my mate: 'I'm doing a burglary, I wanna get caught and that'. So I went in, made loads of noise, got caught burgling it, me and my mate, and got caught and went to jail. But I didn't want to get out of the house with nothing, I just wanted to get caught, like, to go to jail for a while.' (Ryan, 24 years, heroin user)

Negative contexting

The negative contexting of mephedrone, which took the form of labelling it as a 'dirty' drug was one of reasons why problem drug users decided to stop using this drug. However, from the interviews with drug users and experts, it became apparent that the negative contexting of mephedrone also played a significant role in drug users' sustained abstinence from this substance. This is how Kevin, one of the senior drug workers at Catfield, explained how problem drug users used the stigma attached to mephedrone in their attempt to not only cease using this drug, but also to avoid using it in future:

*'I think they label it 'dirty' 'cause they've got bad memories of it. It's got[ten] them into trouble over some reason and they try and give it the worst sounding label that they can find so they won't use it again. I think it's just like a safeguard, protection. If you call something 'f***ing horrible', they will try to stay away from it.'* (Kevin, drug worker)

Drug users also explicitly stated that labelling mephedrone 'dirty' was useful in terms of maintaining the decision to stop. This is how Michael, a current heroin and crack cocaine user who had a history of problematic mephedrone use, put it:

'Marian: Are you still thinking about using meow now? I know you stopped taking it a few months ago...

Michael: Well, I don't miss it. I don't crave it or anything like that. Even though it was quite strong, it's a dirty drug. I don't miss it.' (Michael, 32 years, heroin user)

Several other drug users did not use the word 'dirty', but it was clear that they used the negative contexting of mephedrone as a means of maintaining abstinence. These participants reported that a constant reminder of the negative consequences of mephedrone use, the fact that it was a man-made chemical, an adulterated drug, and that, unlike naloxone⁸ for heroin, there were no pharmacological interventions available for mephedrone, also contributed to their sustained desistance. Below are a few examples of this type of attitude:

'Marian: So you stopped taking meow then. Would you still use it now?

Adrian: No, I won't do it again. Every time I think about it, I [pause]. With me, it's like, I enjoyed the rush, but the thought that it was man-made chemicals and that [it] drives people crazy and turns you into a vegetable, that puts me off.' (Adrian, 28 years, heroin user)

'I haven't used it since. Meow is a killer, it's worse than heroin. You don't know what chemical's in it, and it's no cure for it. With heroin, they have a cure for it, it can help you. But with meow, they can't.' (Gavin, 52 years, heroin user)

Perceived safety of previous repertoire

The drug experts and drug users generally agreed that another efficient method to sustain desistance from mephedrone was to go back to the previous repertoire of drug use, a move which, ironically, was regarded by problem drug users as a safety measure, a harm reduction initiative. This is how Neil, an experienced drug worker at 'Catfield' explained this:

'They were suffering from quite severe issues [because of mephedrone] and their way to keep themselves as safe as possible was to actually go back to crack or amphetamine or heroin, which is a quite bizarre thing to think about. But for them, it was a way of harm reduction for their drug use as a whole.' (Neil, drug worker)

The way in which drug users articulated their view that a move back to heroin or other traditional drugs was a safety measure was to depict mephedrone as the worst substance they ever consumed. There were numerous participants who compared heroin with mephedrone and concluded that resuming their use of heroin was a better choice in terms of the consequences of their drug use:

'Adrian: Meow was the worst drug I've ever taken. It's worse than heroin, to be honest.

Marian: Why do you say that?

Adrian: It's a nasty drug, it is. I had pains in my chest and my foot started to play up a bit because of it. I think it was a DVT [i.e. deep vein thrombosis] or some kind of

⁸ Naloxone is an emergency antidote to opiate overdose. It counteracts the effects of opioid drugs (such as heroin, methadone and morphine) and reverses the life-threatening effects of an overdose on breathing (Talk to Frank, 2017)

infection because of it. I know it was from meow because after I stopped taking it, I didn't have any more problems with that. So that's why I went back to heroin. I think I'm better off using smack, you know? At least I know what I'm doing and there's a cure for it. They have Naloxone for heroin, but they've got nothing like that for meow.' (Adrian, 28 years, heroin user)

Several drug users reported that they promoted this message to other fellow problem drug users, whom they thought were at risk of suffering from the potential harms of mephedrone:

*'I found myself in IOIS [i.e. Integrated Offender Intervention Service] on a number of occasions, advising people to get back on heroin because the decline was profound. So I was saying to people: 'Well, if you are going to make the decision to use anything, for f*** sake, use something that you know. If you're going to spend your money, spend it on something else, something less harmful. Something that you know what's gonna happen. And if the worse does happen, there's something in place to stop that.'* (Paul, 34 years, former heroin user)

Factors for maintaining desistance from mephedrone among complete desisters

The second group I focus on in this section is made up of those participants who stopped taking mephedrone and then managed to maintain their abstinence not just from this drug, but from all the other drugs they had previously used. In other words, these individuals became drug-free. Their discussion about motivations for maintained abstinence mainly revolved around the fact that they received an appropriate drug treatment for their problems. This, in turn, also enabled them to find employment, and/or re-establish lost family ties.

Drug treatment

The treatment options available to mephedrone users is an issue that was often discussed by participants with reference to their desistance attempts. Many respondents seemed to be confused regarding the support programmes available to those who presented problems related to mephedrone use. For instance, several participants highlighted the absence of treatments based on substitute medication specifically tailored to mephedrone and assumed that support programmes based on counselling were the only option available to them:

'Another thing is that there is no treatment for mephedrone. If I had a problem with M-cat, and I went to a service like DIP [i.e. Drug Intervention Programme], or IOIS, and said to them I had a problem with M-cat, I don't know what they'd do. I think they would just say to you: 'Look, come back ' and all they would give you would be treatment by counseling. They would have no medication for it.' (John, 33 years, heroin user)

According to the drug experts, the absence of treatment options dedicated to mephedrone users was one of the main challenges they faced. The novelty of mephedrone and the consequent lack of knowledge about it led to a situation where frontline drug workers did not know how

to deal with the increasing number of clients who presented problems related to this new substance. In this type of situation, drug workers reported feeling either panic or frustration because they did not even know what kind of harm-reduction advice to give to these drug users. This is how David, a drug worker at Catfield, explained this:

'Marian: What would you say were the main challenges for this [drugs] project? When people started flooding in with these problems?

David: Not knowing what to say, like. How can you offer harm reduction advice on something you don't really have any clue? You don't know what that was. We knew it was mephedrone and people were banging it up [i.e. injecting], but no one knew what it was, it wasn't really any documented [account] of use to know what the effects were. Our hands were tied and we felt really frustrated about that.' (David, drug worker)

A few participants though reported that they did manage to get treatment for their mephedrone problem and this was what enabled them to maintain their abstinence. Rob for instance, explained that in his case counselling helped him to sustain his commitment to cease the use of mephedrone, and later all the other drugs he was taking:

'Marian: What exactly did you do and what helped you?

Rob: I went to the doctors to seek assistance but they said there wasn't anything they could really do for me and recommended I [d] come to D [local drug service]. At D, I received counselling. Counselling was very helpful. I found it to be one of the best services I received. I am in a balance that I'm happy with. I was having some angst over my situation before I came to D and then the clarity of support and the counselling, the talking I suppose it allowed me to just help sort out the issues that are compounded, really.' (Rob, 32 years, former amphetamine and cocaine user)

Rhiannon was another example of those participants who reported that they managed to remain abstinent from mephedrone through drug treatment. In her case, a residential rehabilitation based on Christian values was what helped her achieve long-term abstinence not only from mephedrone, but also from drugs in general:

'Rhiannon: A social worker came to visit me in hospital because I've been evicted from my house at the time so I had nowhere to go back to when I left hospital. She mentioned: 'We can find you a council house, or you could go to rehab'. I mentioned it to my mother and she said: 'Yeah, go to rehab. You've never tried rehab. You've tried everything else. You've tried hypnotherapy, you've tried cold turkey, you've tried prescription, the lot. Please, try rehab!' So I left hospital on the 10th of October 2012 and I went straight from hospital to rehab. And it was just, I don't know, 19 months, yeah. It was hard, it was emotionally hard, because we used to have counselling every week. And it was strict, you know what I mean? I had rules to stick to, whereas [in the past] I was used to be doing whatever, when[ever] I wanted. And at times I felt I was being treated like a child. But it worked, it definitely worked.' (Rhiannon, 39 years, former heroin user)

Family

The re-establishment of lost family ties after achieving abstinence from mephedrone use was also mentioned by participants as a motivating factor for their sustained desistance. When they talked about this issue, these individuals acknowledged that this was made possible by the changes they managed to make in their lives as a result of drug treatment. Rob, for instance, explained that a significant improvement in his relationship with his mother played an important role in him remaining abstinent:

'Marian: What else helped you remain abstinent?

Rob: My mother, yeah. And then as I became more and more stable during drug treatment I started speaking to my mother again, and then our relationship had improved, I moved back into my mother's house. And yes, the relationship with my mother is the best that it's been for years.' (Rob, 32 years, former cocaine and amphetamine user)

A few female participants mentioned that having a new, improved relationship with their children was their incentive to stay away from drugs, including mephedrone. This is how Rhiannon explained this:

'Marian: What factors would you say affected that choice [of not going back to using]?

Rhiannon: My kids. I've got two boys. When I was using heroin, social services became involved and they took them to live with my parents. Which was really lucky. Because they could have gone to foster care or adopted out. And I didn't have much of a relationship with them because I was too busy doing drugs. But I moved home [now] and the youngest one wanted to come back and live with me. So that's an incentive because my relationship with him is amazing. Yeah, my kids and my family, really. It's nice to hear my mother say: 'I'm really proud of you' And then for other people to go on to my mother and say: 'Oh, you must be so proud of Rhiannon.' It's an incentive, isn't it?' (Rhiannon, 39 years, former heroin user)

Employment

Another factor that contributed to drug users' continued abstinence from mephedrone and other drugs was finding a job and, interestingly, these jobs were often offered or facilitated by drug services during treatment. Participants explained that employment was important because it provided them with a structured, stable routine which kept them away from drugs, a reliable source of income and it also increased their self-esteem. This is how Rob elaborated on how having a job helped him remain abstinent after he decided to stop using mephedrone:

'Yeah, it's been good. I started as a volunteer, then a peer-mentor and now I have a proper job here [at the drug service]. At least now I can think about things with a clearer head. I have a job, I'm happy. I've got a supply of money, like. Which means I don't have to think about money so much. I suppose I digged myself out of the little pit

I was in. I'm quite happy to be able to look into it and not be stood in it anymore.' (Rob, 32 years, former cocaine and amphetamine user)

Jane, a 42 year old former user of heroin and powder cocaine, also stressed how important being employed was to keep herself busy and provide a routine in her life. These factors in turn helped her remain abstinent not only from mephedrone, but other drugs too. This is how she explained this:

I just got up one morning and stopped it [taking mephedrone], stopped everything. I started to come back to work then. I worked in the café opened by the drug service. I've been back now for over a year. So, I worked in the café four days a week, but now I work two days in the café and three days in the drop-in. Yeah, that keeps me stable, that keeps me steady on a good routine, like. Boredom is the worst thing, yeah, you have to get out of the house, so being out doing work helps me in the long run.' (Jane, 42 years, former heroin and cocaine user)

Summary

To sum up, consistent with previous research on desistance, the factors cited by participants as influential for taking the decision to stop using mephedrone were different from those that helped them maintain this decision. On one hand, becoming aware of the physical and psychological harms of mephedrone, becoming tired of the lifestyle, the development of a fear towards this drug, the acknowledgement of a spoiled identity and the stigmatisation of mephedrone and its users by the drug using community were the factors that prompted participants to stop the use of mephedrone. On the other hand, the factors that enabled participants to maintain their desistance differed depending on their drug use trajectories. Those participants who continued using other drugs reported that what helped them maintain their desistance from mephedrone were: 1) moving away from mephedrone using friends, 2) the negative contexting of mephedrone and 3) a perceived sense of safety associated with a return to their previous repertoire of drug use. Those participants who stopped taking drugs altogether described how they had reached 'rock bottom' as a result of mephedrone. They indicated that what mostly helped them maintain their drug-free status were: 1) enrolment into drug treatment, 2) the re-establishment of lost family ties, and 3) being employed.

Having now covered the desistance from the use of mephedrone, the remaining sections of this chapter address the issues around desistance from synthetic cannabinoids.

Desistance from the use of synthetic cannabinoids

Following the same model used above in the case of mephedrone, this section identifies and discusses the reasons why participants stopped using synthetic cannabinoids: (1) shortly after initiation, and (2) after a period of persistent use. The vast majority (n=12/17) of those participants who had ever tried synthetic cannabinoids ceased using these substances before developing any regular pattern of use, and only one became abstinent after using them persistently. This difference in numbers affected the amount of data available for analysis on this subject and therefore the following two sections of this chapter are disproportionately shorter than those on mephedrone.

Reasons for desisting shortly after initiation

Almost all of the problem drug users who took part in this research who ever tried synthetic cannabinoids decided to stop using these substances immediately or only after a few consumption episodes. When questioned why they did this, participants cited the unpleasant psychopharmacological effects of these drugs and the fact that they became scared by them.

Unpleasant effects of synthetic cannabinoids

Many users of ‘Spice’ products explained that the reason why they did not continue using these substances on a regular basis was because they did not like the psychopharmacological effects produced by these drugs. Some of these participants reported that they perceived synthetic cannabinoids as being too strong and unpredictable for their taste and they often compared them with the natural cannabis, stressing their preference for the latter:

‘I’ve tried some of the synthetic cannabinoids, but I tended to stick to cannabis because I was quite familiar with it, I suppose. Some of the synthetic cannabinoids I found difficult to operate on. I’d smoke it and I’d go under. With cannabis, I could smoke it and then I’d still be able to do things. I’ve done some of them and, yeah, they’re worse than cannabis, like. They’re stronger, their effects are more unpredicted. I couldn’t remember what I did. I smoked one, I was told not to smoke much of it ‘cause it was strong, did myself one skin and I smoked a tiny bit of it, put it down in the ash tray and spent two hours looking out the window. I was a kind of heavy cannabis user and I didn’t get that smoking cannabis. I’ve seen some quite strange reactions off it. It feels more like I’m taking a sedative [drug] rather than smoking cannabis.’ (Rob, 32 years, former cocaine and amphetamine user)

Negative experiences when trying synthetic cannabinoids for the first time also prompted these problem drug users to stop using these drugs on a regular basis. Like Adrian below, many participants reported episodes of collapse and feeling a strong nausea after smoking ‘Spice’ products, something they wanted to avoid in future:

'I've tried it once, had half a joint and ended up laying down in a pool of my own sick. The worst experience of my life, it was horrible. I don't know how people can do it, to be honest with you. I'm not into that stuff. Like I said, I've tried it once, I don't know, half a joint and I didn't like the head at all. It was just a completely un-natural, dizzy, horrible head. I was throwing up and seeing four of everything and having black-outs. It's not my sort of thing.' (Adrian, 28 years, heroin user)

Fear of synthetic cannabinoids

Other participants explained that they stopped using synthetic cannabinoids not only because they did not enjoy the effects of these drugs, but also because they developed a fear towards these substances. Some of them realised that synthetic cannabinoids were not compatible with their existing mental health problems. These individuals reported that they suffered serious head injuries in the past and using a drug that would often lead to instant collapses or fits was too dangerous for them:

'Marian: Have you tried them [the synthetic cannabinoids]?

Gavin: Yeah, only once. I hit the floor and that was it. I only had two puffs [and] 'Bang!' I thought [to myself]: 'Never again!' I just hit the floor like a sack, yeah. And they're no good at all. It brings on fits. Causes people to have fits. I suffer fits all the time, badly, since I had an accident. This is seventeen years ago, I had an accident, smashed my head open, broke my back in eight places, broke my neck in six, fractured my skull and that. That's why I am a bit brain damaged, because of it. Ever since then, I've been on fits. And when I tried that, I had a fit straight after smoking that. They're rubbish, dangerous. Yeah, very dangerous. Because you only have to have three drags and you hit the deck. What's that about? They're no good. With the normal weed you just get stoned and relaxed. With that, you just go 'Boom!' straight on the floor. That's not good, you smash your head open.' (Gavin, 52 years, heroin user)

The problem drug users were also scared by synthetic cannabinoids because of their unpredictable effects. Some interviewees reported that this unpredictability made them feel that they were losing control over their drug-taking experience, something that they did not enjoy. When they reflected on this issue, participants further explained that they preferred the natural form of cannabis over 'Spice' because unlike the latter, they knew what to expect:

'To have something that strong and unpredictable and having it legal, it doesn't make sense to me. I'm just saying that everyone knows what happens with cannabis [when you're smoking it], where they're going, they know that they're not gonna remember things, they get the munchies. I'd live with that, it's easy to live with that rather than someone going up the wall, spewing all over, do you know what I mean?' (Rob, 32 years, former amphetamine and cocaine user)

The unknown content of synthetic cannabinoids was another reason why participants considered these drugs dangerous and therefore decided it was not worth using them regularly. As Rob put it, *'You never know what you're gonna get, too. It's a bit like putting your hand in a bag, like. You don't know what's in there.'* This was a matter of concern for the problem drug

users interviewed in this research because they realised that there was not much knowledge about synthetic cannabinoids available yet, and this meant there was no readily available intervention in case things went wrong either:

'They don't even know the long term effects yet because they haven't been around for long enough. It could cause cancer but you don't know nothing about them. That's what puts me off, to be honest with you. What if something bad happens after I smoke it? No one would know what to do to me, would they?' (Adrian, 28 years, heroin user)

Reasons for desisting after persistent use

From the entire sample, only two participants went on to use synthetic cannabinoids beyond the first few episodes of use and entered the persistence phase of the use of these drugs. Moreover, from these two, Josh – a former heroin user - was still using synthetic cannabinoids at the time of the follow-up interview and therefore his account could not be used in my attempt to understand why and how persistent users of synthetic cannabinoids ceased using these drugs. Ryan – a long-term heroin user who also had a history of problematic use of mephedrone – was the only participant who decided to stop using synthetic cannabinoids after using these drugs persistently and therefore his was the only account utilised for the following sections. Despite this obvious limitation, Ryan did provide sufficient information in order to achieve an in-depth understanding of his decision to cease the use of synthetic cannabinoids, which may reflect the views of other problem drug users who found themselves in a similar situation.

Like McIntosh and McKeganey's (2001) participants, Ryan reported that he realised the extent of the harms generated by his use of 'Spice' products and therefore decided to cease the use of these drugs. During the interview, Ryan briefly cited a combination of factors that led to this decision: an accumulation of physical harms which often required hospitalization, severe loss of weight and frequent episodes of hallucinations. Overall, he indicated that all these made him tired of using synthetic cannabinoids. This is how he put it:

*'Marian: What made you decide to stop using the legal high?
Ryan: I was just tired of using it, yeah. It just kept putting me in hospital, losing loads of weight off it, paranoia, talking to people who weren't even there! Just hallucinating off it. It just really messed me up.'* (Ryan, 24 years, former heroin user)

Maintaining desistance from synthetic cannabinoids

After he managed to cease using synthetic cannabinoids, Ryan was also able to maintain his decision to stay away from these substances. The factors that enabled him to remain abstinent are discussed below.

Negative contexting

Ryan firstly explained that what helped him remain abstinent was the negative contexting of synthetic cannabinoids (Biernacki, 1986), which took the form of a permanent reminder of how damaged he was while he was using these drugs. Ryan stressed that an important role in maintaining his decision to stop was also played by his family members who were constantly reminding him of how much he suffered during that period of time:

Marian: Since you've been out you said you stayed away from it [synthetic cannabinoids]. What made you make this decision of not to go close to it? How did you cope with not going back to using?

Ryan: Just seeing how it messed me up before. All my family telling me how bad I was on it and stuff I was doing on it. I just thought: 'I'm not doing that no more.' (Ryan, 24 years, former heroin user)

Drug treatment

Another contributing factor to Ryan's continued abstinence was his voluntary enrolment into a residential drug rehabilitation programme. In their study of recovering drug addicts, McIntosh and McKeganey (2001:53) argued that sometimes positive experiences in the drug user's life could provide 'a vision of an alternative future and reinforce the advantages of a drug-free lifestyle'. During the interview, Ryan praised the support he received during the drug treatment and acknowledged that the lifestyle in this residential facility was much better than what he experienced previously. In Ryan's case, his commitment to remain abstinent was underpinned by the positive experience he had during drug treatment and a desire to continue to have access to this new, improved lifestyle. This is how he put it:

Ryan: Well, I've gone off the legal high and put myself into a rehab centre for a couple of months.

Marian: Can you tell me more about this rehab place? What did you do in there?

Ryan: You get in there, you do your detox for like two weeks, then they get you into a routine like do house jobs, read the Bible, go out and work in the afternoon and stuff, painting and decorating and stuff. It's a good place up there. It was hard, yeah, but they'll help you see it out. It's a better lifestyle up there, much better.' (Ryan, 24 years, former heroin user)

Summary

To sum up, the overwhelming majority of participants who ever tried synthetic cannabinoids stopped using these drugs very shortly after they first tried them. These individuals explained that they did not go on to use synthetic cannabinoids on a regular basis because they did not enjoy the effects of these drugs, which were either too strong or made them feel unpleasant after taking them. Moreover, these participants became scared of synthetic cannabinoids because they seemed to exacerbate existing mental health issues, their contents were unknown and their effects were unpredictable.

Only one participant from the entire sample used synthetic cannabinoids persistently before deciding to desist from the use of these drugs. This problem drug user explained that the main reason why he stopped was the fact that he became tired of the lifestyle associated with the use of these drugs. He further reported that he was able to maintain his abstinence from synthetic cannabinoids and what helped him through this process was a permanent reminder of the damages he suffered while using these drugs, and a desire to uphold the positive lifestyle that he achieved while being enrolled in a residential drug treatment. It is clear though that the above information is very limited and therefore more research with persistent users of synthetic cannabinoids who managed to stop using these drugs is necessary to obtain a more complete understanding of this topic.

Conclusion

This chapter focused on the last stage in participants' use of mephedrone and synthetic cannabinoids, namely the desistance. All participants who tried mephedrone and all but one of those who had consumed synthetic cannabinoids stopped using these drugs either before I started conducting my research or by the time the data collection stage was completed.

The participants' motivations for desisting from the use of mephedrone varied depending on their patterns of use of this drug. Those who only used mephedrone for a few times provided simpler explanations for their decision to stop, which were mainly related to the unpleasant pharmacological effects of this substance.

However, those who became persistent users of mephedrone identified more complex reasons as to why they ceased taking this drug. These individuals explained that they became aware of the negative physical and psychological effects of mephedrone and subsequently developed a fear towards this drug or became tired of the mephedrone lifestyle. Moreover, most participants reflected on their own drug-using situation and realised that their identities had become spoiled

and unacceptable as a result of their use of mephedrone. In this context, mephedrone and its users started to be stigmatised by the problem drug users' community and were labelled 'dirty'. It is interesting that this stigma attached to mephedrone ultimately led to its rejection by participants and thus contributed to the temporary nature of the use of this drug within this cohort. The mechanism through which participants used the stigmatisation of mephedrone in their attempt to desist from using this drug was identified in previous studies that looked at the desistance process (in relation to other substances) in the form of the 'negative contexting' of a drug (Biernacki, 1986).

When asked what factors contributed to the maintenance of their decision to stop using mephedrone, participants identified different reasons depending on whether they continued using other drugs after their experience with mephedrone or whether they stopped taking drugs altogether. Those who resumed their drug-use patterns explained that what helped them remain mephedrone-free was moving away from mephedrone-using friends, the negative contexting of mephedrone and a perceived sense of safety associated with a return to their previous repertoire of drug use. Conversely, those who ended their drug-use careers with mephedrone reported that the most influential factor in maintaining their drug-free status was their enrolment into drug treatment, which highlights how important it is to provide these individuals access to such programmes. This in turn allowed them to re-establish lost family ties, and facilitated their subsequent employment, which were also cited as significant in maintaining desistance.

In terms of desistance from synthetic cannabinoids, participants again provided different motivations depending on the patterns of use they had developed with regard to these substances. Like in the case of mephedrone, the short-term users of 'Spice' products reported desisting because they did not enjoy the effects and they developed a sentiment of fear toward these drugs.

Only one participant stopped smoking synthetic cannabinoids after using them persistently. Therefore, this study's findings regarding the desistance from the use of synthetic cannabinoids after persistent use should be treated with care and not generalised. This participant reported that becoming tired of his lifestyle while using synthetic cannabinoids made him stop using these drugs. When asked what helped him maintain his desistance, he explained that this was prompted by a permanent reminder of the damages he suffered while using these drugs and a desire to uphold the positive lifestyle that he achieved while being enrolled in residential drug treatment.

The analysis conducted in this chapter revealed that desistance and maintenance of desistance factors reported in this study are congruent with the wider drug misuse literature, but they are unique in the sense that these have yet to be explored in relation to mephedrone and synthetic cannabinoids. What is also significant about these findings is that they provide some insight into the cessation of use of new psychoactive substances among problem drug users, a population that was generally overlooked by researchers who studied this phenomenon.

With this chapter, the journey into participants' use of mephedrone and synthetic cannabinoids is concluded. Using a multi-stage approach borrowed from researchers that employed a 'career' perspective on drug misuse, I tried to shed some light on how and why problem drug users initiate, continue and stop using these new psychoactive substances. In the next chapter, a more thorough and detailed comparison between this study's findings and the existent literature is undertaken.

CHAPTER NINE - Discussion

Introduction

In this penultimate chapter of the thesis, I aim to explain the findings as a whole and to consider them in the light of existing literature. Firstly, I remind the reader of the research questions and introduce the theoretical framework that will be adopted to make sense of the findings. Secondly, the structure of this chapter will be explained and justified, and finally, the findings will be discussed in detail.

The use of new psychoactive substances among problem drug users is a topic that has received little attention in the drug misuse literature in recent years. With one exception, a report for the Scottish Government published in November 2016 (MacLeod et al. 2016), to date there are no other community-based studies that have investigated this phenomenon in the UK. This thesis aimed to make a contribution towards filling this gap by carefully examining the initiation, continuation and cessation of use of new psychoactive substances (NPS) among problem drug users in South Wales.

The questions this research project sought to answer are as follows:

- 1) What NPS do problem drug users include in their repertoire of drug use?
- 2) Why do problem drug users start using NPS and what are the characteristics of their first use of NPS?
- 3) Why do problem drug users persist in using NPS and what are the characteristics of their persistent NPS use?
- 4) Why do problem drug users desist from NPS use and how do they maintain the decision to stop?

Morrison (1991:216) stresses that 'Where illegal and often covert behaviour, such as drug use, are the subject of investigation, a combination of conventional qualitative data collection and observational techniques are ideal'. Following on from Morrison's suggestion, data collected for this research came from three different qualitative sources: twenty-six in-depth interviews with problem drug users living in the community, seventeen of which were repeated after an average of six months, a 13-month micro-ethnography conducted in the drop-in of a busy drug service, and eleven in-depth interviews with experienced drug experts who work on a daily basis with problem drug users from South Wales.

The analysis of the data collected revealed that drug users' decision-making processes are complex and influenced by a variety of different factors. In this chapter I endeavour to disentangle how these factors are related to, and interact with, each other. In order to achieve this, I opted for Zinberg's (1984) classical *drug, set and setting* theoretical framework, which has been used in the past (McDermot et al., 1993; Jansen, 1997; McElrath and McEvoy, 2002) and more recently (see for example Mui et al., 2014; Richert, 2015; and Lau et al. 2015) in order to illustrate and analyse how drug use can be related to factors on different but connected levels. Whereas this framework was used by these authors in the analysis of illicit substances such as heroin, ecstasy and cannabis, my thesis is, to the best of my knowledge, the first attempt to utilize the *drug, set, setting* framework in an exploration of NPS.

In Zinberg's view 'in order to understand drug use, *drug, set and setting* variables must all be taken into account' (Zinberg and Harding, 1979:127). Moreover, as Shewan et al. (2000:438) point out, the various *interactions* between these elements are 'equally important as determinants of a drug experience as are the components *individually*'. Throughout this chapter I therefore point out not only the relative importance of individual factors, but also the role of the various interactions between them in the problem drug users' decisions to initiate, continue and stop using NPS.

Cohen (1995) insisted that for this theoretical framework to be effective, it is important that clear definitions for the three components are provided. In this thesis, *drug* variables are related to the pharmacological effects of the substance (Zinberg, 1984), but also to factors such as purity and amount taken (Shewan et al., 2000) and routes of administration (Lau et al., 2015). *Set* refers to 'the attitude of the person at the time of use' (Zinberg, 1984:5) and includes the individual's 'past [drug] experiences, mood, motivations ... and expectations' (Jansen, 1997:117). Finally, *setting* variables are related to the physical and social environment where drug use takes places (Zinberg, 1984). The social setting includes 'the set of other people present' (Jansen, 1997:117) meaning 'the broader beliefs and values of the user's social group' (Lau et al., 2015:710), as well as the broader drug market, socio-economic, political and legal context (Richert, 2015; Shewan et al. 2000; Lau et al., 2015).

Inspired by authors who looked at drug use from a career perspective (for instance, Faupel, 1991; Rosenbaum 1981), Shaw (2002) suggests that a better understanding of someone's use of a specific drug could be achieved by a separate examination of the three different stages of that person's use of that substance, namely initiation, persistence and cessation. A similar approach has been employed throughout this thesis and the discussion that follows below in

this chapter is organised around how *drug, set and setting* variables influence participants' decision-making processes in each of these three distinct phases of their use of new psychoactive substances.

Having now set the scene in terms of the structure of this chapter, I move on to analyse my participants' decision to *start* using mephedrone and synthetic cannabinoids respectively, via Zinberg's (1984) framework.

Initiation

All the participants in this study had either a current or past history of long-term use of illicit drugs when they had their first experience of NPS consumption. This is important to note as even though I discuss initiation, what I am in fact analysing is initiation in the use of a *new* drug, not the *first ever* use of a drug. Among others, Wagner et al. (2014) and Morrison (1991) also stress the significance of this distinction as the reasons why individuals decide to use drugs for the first time might differ from those for adding a new substance to their repertoire of drug use.

Despite the vast array of substances that are classed as NPS – more than six hundred as of July 2017 (EMCDDA and Europol, 2017), participants reported that the only drugs in this category that they had used were mephedrone and synthetic cannabinoids. In order to obtain an accurate and refined understanding of the use of these drugs, as recently suggested by Soussan and Kjellgren (2016), the initiation in the use of mephedrone and synthetic cannabinoids were studied individually and, as a result, the findings for each of these drugs are discussed separately below.

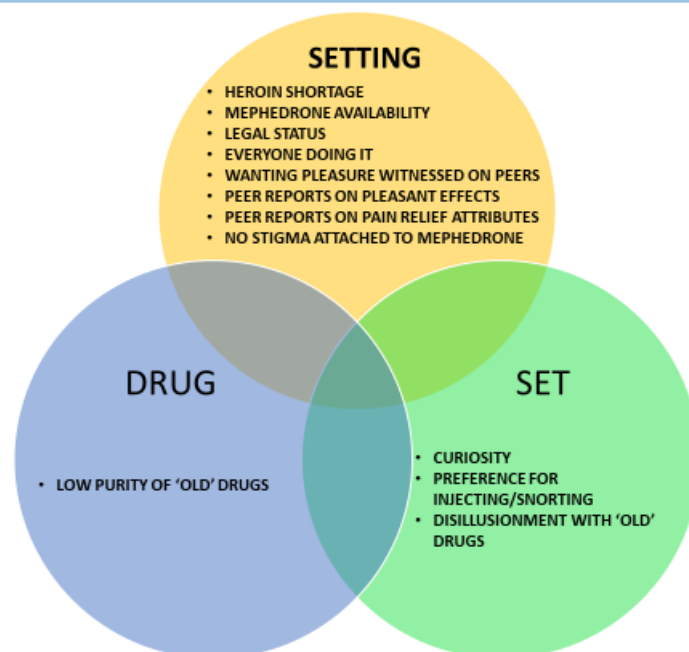
Mephedrone initiation – 'A perfect storm'

A common theme among participants in this research was that a combination of factors, rather than a singular, individual one, was responsible for their initiation into the use of mephedrone, which is consistent with the general consensus in the literature that the aetiology of drug taking is multi-faceted (Waldorf, 1973; Edwards, 1974; Plant, 1981). One drug expert explicitly stated that a variety of different circumstances worked together at the same time and generated what he called 'a perfect storm', a favourable context in which problem drug users from South Wales began to use mephedrone.

After an analysis of the data using Zinberg's (1984) framework it became apparent that not all of the three dimensions (i.e. *drug, set, setting*) were equally important determinants for

mephedrone initiation. As shown in figure 7 below, *setting* variables were the most important contributors to mephedrone initiation and these factors also largely influenced the *drug* and *set* variables related to initiation. The *setting* factors identified were related to local drug market circumstances, drug policy, and the proximity to, and influence of, mephedrone-using peers and their attitude toward mephedrone. The *set* related to curiosity, disillusionment with traditional drugs, and participants' preference for a specific administration method. Finally, the only *drug* variable that contributed to participants' first ever use of mephedrone was the low purity of traditional drugs. Each of these will be considered in turn and any relationship between them will be highlighted where apparent.

Figure 7 Initiation factors for mephedrone



Setting

The *setting* factors that contributed to participants' mephedrone initiation were: a sustained shortage of heroin on the local drug market, a corresponding high availability of mephedrone, the illegal status of mephedrone, the fact that mephedrone did not have a stigma attached to it (as opposed to heroin or 'crack' cocaine), and the influence of other drug-using friends. This last factor was not explicitly mentioned by participants, but it included the following motivations which were cited by them: the fact that everyone else in their drug using group was using mephedrone, wanting pleasure that they witnessed their peers experiencing, positive

peer reports about mephedrone's effects, and peer reports about mephedrone's ability to mediate withdrawal symptoms. Each of these are further explained below.

Heroin shortage

The vast majority of participants who ever tried mephedrone were heroin users (77%, n=17), while the rest were either amphetamine or cocaine users (23%, n=5). Consistent with previous research from Europe (Van Hout and Bingham, 2012; Racz et al., 2013; Peterfi et al., 2014; Kapitany-Fevony et al., 2015), the findings of this study suggest that the catalyst for the heroin users' decision to start using mephedrone was an unprecedented heroin shortage that hit the South Wales area sometime between 2012 and 2013. In terms of the amphetamine/cocaine users, this heroin shortage did not play any significant role in their mephedrone initiation.

The accounts of the drug users and drug experts interviewed in this research were consistent regarding the existence of this heroin shortage and its timing and anecdotal reports from the local media at the time (Daly, 2012; Dulin, 2012; Omnicans, 2012) and the local police (Chadd, 2013) support the participants' narratives.

Participants reported that as a consequence of the heroin shortage, the availability of usual heroin substitutes which were used by problem drug users in similar periods of drought (i.e. methadone, buprenorphine (Subutex), buprenorphine/naloxone (Suboxone)) also fell considerably. It is against this backdrop that the problem heroin users started to look for an alternative to their drug of choice.

Availability of mephedrone

At the same time when heroin was difficult to source, participants reported that, in contrast, mephedrone was widely available on the local drug market via street dealers. Van Hout and Bingham (2012), Wagner et al. (2014) and MacLeod et al. (2016), who all studied cohorts of problem drug users who also used mephedrone, also found that availability played a central role in their participants' mephedrone initiation.

The fact that long-term users of heroin, which is a depressant drug, decided to start using mephedrone, which is a stimulant substance, could be regarded as a surprising move by these individuals (Csak et al., 2013). However, a similar development was documented in Australia in late 2000 and early 2001, when during a significant shortage of heroin on the local market, users of this drug replaced the depressant heroin with stimulants such as cocaine and methamphetamine (Miller et al., 2001; Rouen et al., 2001; Dagenhardt et al., 2002; Topp et al.,

2002). This change in patterns of use led Longo et al. (2004) and Roxburgh et al. (2004) to contend that in times of low availability, heroin users display adaptability and pragmatism. More recently, Kapitany-Fevony et al. (2015:241) conducted a study on the use of stimulant NPS among problem drug users in Hungary and concluded that ‘the popularity of new synthetic stimulants [including mephedrone] among former users of heroin or other opiates can be explained by rather practical and not psychopharmacological aspects’. As seen above, these authors’ findings also apply to the cohort of problem drug users I studied, suggesting that *setting* variables related to drug market circumstances influence the drug users’ *set* (i.e. their preference for a particular psychoactive substance). It is worth noting here that this particular finding is evidence of the adaptable nature of the *set* dimension, which, as seen above, can be influenced by a variety of external factors (in this case *setting* variables).

Legal status of mephedrone

Most of the drug users interviewed in this research, regardless of their primary drug of choice, indicated that they would not have used mephedrone had this substance been legal. They consistently reported that the *illegal* status of this drug attracted them and consequently contributed to their decision to try it. More specifically, they indicated that when the Government classified mephedrone as a Class B drug, their perception of this drug changed, and they started to regard it as a ‘real drug’, something that was now worthy of their attention. When mephedrone was a legal substance, they did not consider using it because they were under the impression that ‘*legal highs*’ were not as good as the *illegal* drugs.’ (Lawrence, 34 years, heroin user).

A few participants also stressed that because mephedrone was illegal, their consumption episode was more enjoyable, explaining that this provided them with ‘*that extra buzz of doing something illegal.*’ (Adrian, 28 years, heroin user). This motivation is not uncommon, especially for psychological perspectives that take into account the sensation-seeking behaviour of drug users (see for instance Matza and Sykes, 1961; Waldorf, 1973). Nevertheless, after a thorough research of the existing literature, this appears to be the first time this has been reported in relation to a new psychoactive substance. Authors such as Wood et al. (1995:175) explain that ‘the physiological highs produced by risky, illegal behaviour [such as drug use]’ are ‘intrinsically pleasurable’ and are felt by some individuals concomitantly with the pleasant pharmacological effects of the drug, thus enhancing their overall drug taking experience.

It is clear from these two observations that the ‘legal status’ of mephedrone, a *setting* variable, influenced both the *set* of the users (by way of changing their perception and expectations regarding mephedrone), and also the *drug* component (by increasing the overall enjoyment of the drug-using experience).

No stigma attached to mephedrone

Several participants explained that they started using mephedrone because at the time when they first tried it, this drug did not have a negative image among the general public and/or the community of drug users (*setting*). These individuals explained that at that moment mephedrone was regarded as a better drug than heroin or ‘crack’ cocaine and they expected others to praise them for using it instead of these ‘junkie’ drugs. A similar finding was reported earlier by Van Hout and Bingham (2012) in their research of heroin injectors in Dublin. Participants in this Irish study explained that they started to use mephedrone because they thought that by switching to this new drug they would avoid experiences of social exclusion to which they were subjected on a regular basis because of their heroin use.

Peer influence

The final important *setting* variable that contributed to participants’ mephedrone initiation was the influence of their mephedrone-using peers, which is part of these individuals’ ‘social setting’ (Zinberg, 1984; Jansen, 1997). The other few studies that documented mephedrone initiation among similar cohorts of problem drug users (Van Hout and Bingham, 2012; Kapitany-Fevony et al., 2015; Racz et al., 2015; MacLeod et al., 2016) also highlighted the significant role played by the social environment in these individuals’ decision to try mephedrone for the first time. This is not at all surprising given the wide consensus in the literature of the significant role played by the social network of drug-using friends and acquaintances in all drug consumption decision-making processes, from initiation to cessation (Morrison and Plant, 1991; Tracy and Biegel, 2006; Day, 2017).

The first form in which peers influenced participants’ mephedrone initiation was through their physical proximity to participants. The drug users I interviewed reported that they first tried mephedrone because everyone else in their drug-using circle was using the drug, and because they witnessed the pleasant effects of mephedrone on their peers and wanted to feel the same themselves (also reported in Kapitany-Fevony et al., 2015 and MacLeod et al., 2016). Moreover, participants stressed that their peers were also part of the situational context of their first use of mephedrone (also reported by Racz et al., 2015). Drug-using friends or

acquaintances were often present when participants tried mephedrone for the first time, and also were the source of the first dose of mephedrone, which was often offered to them for free.

The other way in which peer influence materialised as a trigger for mephedrone initiation was through the sharing of information regarding the effects of mephedrone among participants' social setting. McElrath and McEvoy (2002) stressed that users within the same social network often share information about the effects of the various drugs they take and that peer reports on drug effects have a strong suggestive power on the prospective user. A similar point is made by Jansen (1997) who argues that an individual's drug use is sometimes influenced by 'the *set* of others', meaning the attitudes, reports and behaviours of their peers. Supporting these suggestions, the problem drug users I studied explained that they tried mephedrone because of their peers' positive reports on the effects of mephedrone, and because their peers told them that mephedrone would alleviate the 'pains' (physical and emotional) of heroin withdrawal symptoms. Similar findings were reported in Ireland by Van Hout and Bingham (2012), but this is one of the first studies conducted in the UK where the sharing of positive information among peers was documented as an influence in problem drug users' decision to initiate mephedrone use.

Finally, the remaining *setting* variable cited by participants as influential for mephedrone initiation was the fact that, unlike heroin or 'crack' cocaine, this drug did not have a negative label attached to it at the time. Mephedrone's lack of stigma in comparison to other traditional drugs was also cited in Van Hout and Bingham's (2012) study of Irish heroin injectors as one of the reasons why these individuals tried mephedrone for the first time.

Having now discussed all the *setting* variables that contributed to participants' decision to try mephedrone, I move on to consider the other aspects of Zinberg's (1984) framework (i.e. *drug* and *set*). As it will become apparent shortly, the following sections are much shorter, which again reflects the importance of the *setting* dimension in mephedrone initiation for this cohort.

Drug

The data collected here suggest that the only *drug* variable which contributed to mephedrone initiation among this cohort was related to the low quality of heroin and other traditional illicit drugs. The influence of this factor and its interaction with other variables is detailed below.

Poor quality of heroin and other traditional drugs

The examination of the role of the *drug* component in mephedrone initiation highlights another situation when variables from different dimensions of the *drug, set, setting* framework interact and influence each other. More specifically, the sustained low availability of heroin on the local drug market during 2012-2013 (*setting* variable) led to a decrease in the quality of the heroin available to drug users at that time (*drug* variable), which in turn steered these individuals towards mephedrone initiation.

A few participants (both users and experts) expressed a similar view with regard to other traditional drugs too. These individuals reported that the quality of amphetamine and cocaine in South Wales has been consistently poor in the last few years (*drug* variable), which they attributed to the historically poor availability of these drugs on the local drug markets in the area (*setting* variable).

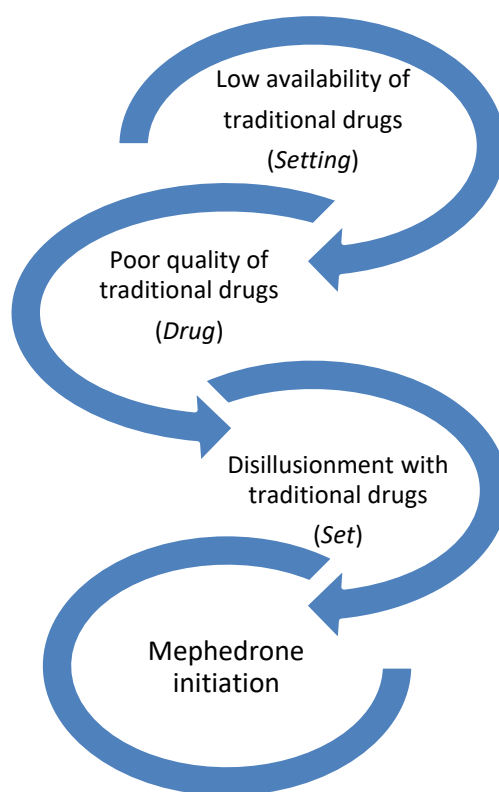
Set

The *set* variables that influenced participants' decision to initiate mephedrone use were related to curiosity, disillusionment with traditional drugs, and participants' preference for a specific administration method. Each of these are discussed below.

Disillusionment with heroin and other traditional drugs

Another example of the interaction between the different *drug, set, setting* components is illustrated in the case of the first *set* variable that respondents reported as having contributed to their mephedrone initiation, namely a feeling of disillusionment regarding heroin and other traditional drugs prior to their initial experimentation with mephedrone. As illustrated in Figure 8 below, the low availability of traditional drugs in South Wales (*setting* variable) meant that the traditional drugs sold on this market were of poor quality (*drug* variable), which led to participants' dissatisfaction with these substances (*set*). This, in turn, contributed to these individuals' decision to experiment with mephedrone for the first time.

Figure 8 – Example of interaction between *drug*, *set* and *setting* variables in mephedrone initiation



Curiosity

Another *set* variable commonly cited as a reason for mephedrone initiation among participants, regardless of their primary drug of choice, was curiosity, which is consistent with findings of similar studies that focused on mephedrone use among samples of problem drug users (see for example MacLeod et al., 2016; Wagner et al., 2014). These participants explained that mephedrone’s novelty and a general desire to experiment new things was what determined them to try mephedrone.

Preference for a particular administration route

Some participants reported that another *set*-related reason why they started using mephedrone was because they preferred using drugs intravenously and since they could also inject mephedrone, they found it natural to try it. However, this was not restricted to intravenous users. A few participants, who preferred snorting as an administration method, also mentioned that one of the reasons why they started using mephedrone was because they could consume it

intra-nasally. Some of these respondents insisted that the ritual of administering the drug (either intravenously or intra-nasally) is at least as, if not even more important than, the pharmacological effects of the drugs they consumed. This finding that the transition between different substances could be underpinned by the opportunity to continue using their preferred method of administration is new in the UK and it supports research elsewhere. For instance, in their study of Irish heroin users who started using mephedrone, Van Hout and Bingham (2012:193) pointed out that ‘the injection of mephedrone was an extension of [participants’] injecting practices’, while Kapitany-Fevony et al. (2015:241), in their study of problem drug users in Hungary reported that ‘mephedrone injecting is most likely a continuous habit of former or current heroin or amphetamine injectors’.

Summary

To sum up, my participants’ mephedrone initiation was a complex phenomenon, influenced by a variety of factors from different, but connected levels. Using Zinberg’s (1984) framework it became apparent that *setting* variables related to local drug market circumstances, drug policy and social setting (i.e. peer influence, stigmatisation) were the most significant and these had an important influence both on the *drug* and the *set* elements of mephedrone initiation. The issue that I address next is whether a similar picture emerged with regard to my participants’ initiation in the use of synthetic cannabinoids, the other NPS that became popular among this cohort of drug users in South Wales.

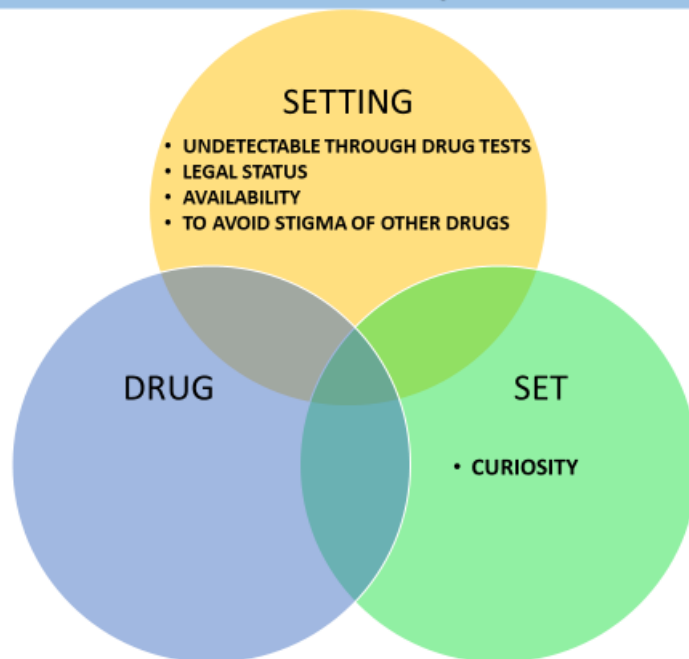
Synthetic cannabinoids initiation

To date, only a handful of studies have examined individuals’ synthetic cannabinoids initiation, and research that focused specifically on problem drug users’ decision to try these drugs is particularly scarce (see, for instance Wagner et al., 2014; MacLeod et al., 2016; Ralphs et al., 2017). This study therefore makes a contribution towards filling this important gap in the literature, especially at a time when there are increasing anecdotal reports which indicate that problem drug users’ new drugs of choice on the streets of the UK are the synthetic cannabinoids (see for instance Maude 2017, Perraudin 2017 and Robb 2017).

As illustrated in Figure 9 below, the data suggest that *setting* variables related to drug-testing practices, drug policy, local drug market circumstances, and social attitudes toward problem drug use had the most influence in participants’ decisions to start using synthetic cannabinoids. In terms of *set* variables, only curiosity was cited among participants as having contributed to their synthetic cannabinoids initiation, whereas *drug* variables were completely absent from

respondents' narratives regarding their first ever use of these drugs. Factors from each of Zinberg's (1984) dimensions will now be considered separately and, where apparent, any relationship between them will be discussed.

Figure 9 - Initiation factors for synthetic cannabinoids



Setting

The *setting* variables that contributed to participants' synthetic cannabinoids initiation were: the non-detectability of these drugs through routine drug tests, the fact that they were legal, readily available and accessible, and in order to avoid the stigma associated with other traditional drugs. Each of these are further explained below.

Non-detectability through routine drug tests

The most often cited reason for trying synthetic cannabinoids among the cohort of drug users I studied was the fact that these substances were not detectable through the drug tests they were subjected to on a regular basis. This feature was highly valued by participants because it allowed them to get intoxicated while, at the same time, technically complying with the abstinence requirements of a court-imposed drug treatment and/or drug rehabilitation requirement order. Ralphs et al. (2017) and Wagner et al. (2014) also investigated synthetic cannabinoids initiation among problem drug users, and they too reported that the inability of drug tests to detect synthetic cannabinoids had a significant contribution to their participants'

decision to try these drugs. Research that addressed the issue of synthetic cannabinoids initiation among non-problem drug users also identified this motivation as having influenced individuals' first experimentation with these drugs (see for instance Vandrey et al., 2012; Barratt et al., 2013 and Spaderna et al., 2013). In light of my and other studies' findings it could therefore be concluded that the non-detectability of synthetic cannabinoids through routine drug tests is a valid motivation for the initiation in the use of these drugs, regardless of the population of drug users concerned.

Legal status

It was interesting to observe that in the case of mephedrone, participants reported that they started using it because it was an illegal substance. However, in the case of synthetic cannabinoids, the same participants cited these substances' legality as one of the prime reasons why they first tried them. This discrepancy may be explained by the role participants attributed to these two different NPS in their repertoires of drug use.

Mephedrone was largely seen by the individuals I studied as a potential replacement for their primary drug of choice, which was exclusively an illegal drug (i.e. heroin, amphetamine, or cocaine). In my participants' view, if mephedrone was to be adopted as a substitute to their preferred drug, it *had* to be at least illegal and preferably also dangerous. As seen in the previous section of this chapter, once mephedrone was classified under the Misuse of Drugs Act 1971, the problem drug users I studied started to get interested in trying this new illegal substance.

On the other hand, synthetic cannabinoids were largely regarded by my participants as a potential replacement for cannabis, a substance which was secondary in their repertoires of drug use. Because these individuals already had to deal with the hassle of procuring their primary drug of choice, they welcomed the possibility of being able to avoid similar problems in relation to a secondary drug of choice, which was not as worthy of taking the same risks. Following this rationale, synthetic cannabinoids were considered a convenient alternative to cannabis and in their case their legal status constituted an attraction (rather than a deterrent).

Availability and ease of access

A further *setting* variable that contributed to participants' synthetic cannabinoids initiation was the fact that these substances were widely available, which was very closely linked to their legal status. As a consequence of the lack of legal sanctions, these substances spread rapidly and have become very popular in prisons in the past few years (Walker, 2015; RAPt, 2015).

Consistent with Ralphs et al.'s (2017) findings, participants who initiated synthetic cannabinoids use in this closed environment reported that the wide availability of these drugs in prison contributed decisively to their initial experimentation with them. A similar picture emerged from participants who reported they started using synthetic cannabinoids outside prison, in the community. These individuals also identified the availability of synthetic cannabinoids as an influential factor for their initiation (also reported by Wagner et al., 2014 and MacLeod et al., 2016). Participants reported that their access to the widely available synthetic cannabinoids was facilitated by their social setting, meaning friends, acquaintances or fellow prisoners who were also users of synthetic cannabinoids and often the source of these drugs at their initiation.

To avoid stigma associated with other drugs

A motivation for synthetic cannabinoids initiation that was identified by participants in this study, but which is not reported elsewhere in the literature, was a desire to avoid the stigma associated with other illicit drugs such as heroin. A few of the drug users interviewed explained that they were tired of being stigmatised by the general population for their use of heroin and stressed that they started using synthetic cannabinoids in the hope that they would not be labelled as 'junkies' or 'scumbags' any more. This suggests that, at least at the time of this study, synthetic cannabinoids were perceived by problem drug users as less stigmatised than heroin. The role played by stigma in participants' decisions regarding their use of drugs is not surprising. In fact, this has been studied extensively in the past and there are clear indications that stigma can and does influence drug users' choices of drugs they consume (see, for instance Simmonds and Coomber, 2009; Fitzgerald et al., 2004; Copes et al., 2014). What this study does, however, is to highlight the influence of stigma in drug-using decision-making processes related to new psychoactive substances, an aspect that has not received much attention in the literature.

Set

Apart from the *setting* variables discussed above, participants only cited one *set* factor as the other determinant in their decision to try synthetic cannabinoids for the first time, namely curiosity. The role of this factor is explained next.

Curiosity

As indicated earlier in this chapter, participants cited curiosity as one of the motivations for trying mephedrone and some of them reported the same reason for their synthetic cannabinoids

initiation. These individuals explained that they first tried synthetic cannabinoids because they wanted to know what it felt like to be under the influence of these new drugs. This curiosity was often informed by participants' social setting, in that many of their friends were discussing among them about these drugs and their effects. Wagner et al. (2014) in their American study of injecting drug users also reported that their participants tried synthetic cannabinoids for the first time because they were curious about their pharmacological effects, which is also consistent with the wider literature, where 'curiosity' is one of the most cited reasons for initiation in the use of any type of drug.

Summary

To sum up, participants reported that the key factors for their synthetic cannabinoids' initiation were *setting* variables related to drug-testing practices, drug policy, local drug market circumstances, and social attitudes toward problematic drug use. The only other factor contributing to these individuals' first use of synthetic cannabinoids was curiosity, which according to Zinberg's (1984) framework, is part of the drug user's *set*. As opposed to mephedrone initiation, *drug* variables were completely absent from respondents' narratives regarding their first ever use of synthetic cannabinoids.

After they had their first experience with these NPS, most of those who tried mephedrone and significantly fewer of those who tried synthetic cannabinoids, continued using them and thus became persistent users of these drugs. The next section of this chapter closely analyses the factors that influenced my participants' decision to continue their use of mephedrone and synthetic cannabinoids, respectively. Again, Zinberg's (1984) *drug, set, setting* framework is utilised in order to disentangle the complex relationships between the factors identified.

Persistence

Almost two thirds (15/23) of those participants who ever tried mephedrone and just over one-tenth (2/17) of those who ever tried synthetic cannabinoids continued using beyond initiation and had therefore entered the persistence or continuation phase of their use of these drugs. As seen earlier, the initiation for both mephedrone and synthetic cannabinoids was primarily influenced by *setting* factors. However, in terms of participants' decision to persist in using these NPS, the data suggest that *drug*, *set* and *setting* factors were equally influential, and this was valid both for mephedrone and synthetic cannabinoids. This finding is important because it highlights the merits of an approach that focuses on initiation and persistence separately, as these might be underpinned by different factors.

Previously, much of the research on NPS identified general reasons for use, which inevitably mixed motivations for initiation and persistence together (e.g. Allen, 2016; Soussan and Kjellgren, 2016). By focusing on these two stages separately, the current study provides a more subtle and detailed perspective and therefore helps refine the general knowledge on motivations for NPS use. This section is concerned with discussing the various aspects from the *drug*, *set*, *setting* framework that contributed to participants' decision to continue using NPS and, where apparent, any interactions between them. Using the same layout as earlier, mephedrone and synthetic cannabinoids persistence will be addressed separately.

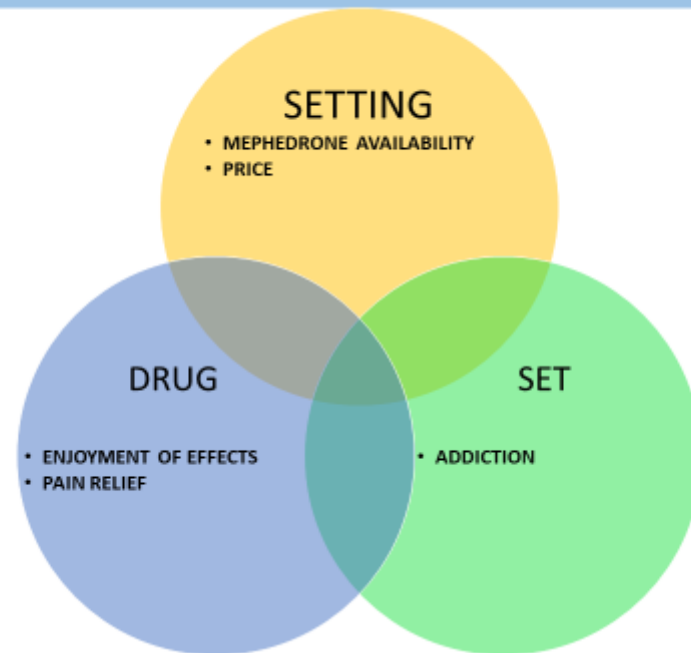
Mephedrone persistence

As a general observation, my findings regarding motivations for continued use of mephedrone were consistent with the few other studies that have investigated the use of this drug among problem drug users, such as Van Hout and Bingham (2012), Kapitany-Fevony et al. (2015), Csak et al. (2015) and MacLeod et al. (2016). Similar to my approach, MacLeod et al.'s (2016) research is one of the few to distinguish between initiation and persistence factors for mephedrone use. These authors conclude that some of the motivations for mephedrone initiation (such as availability and price) are also valid explanations for mephedrone persistence. Similarly, my participants cited a *setting* factor – mephedrone's wide availability - as being an influence for both initiation and persistence.

Nevertheless, as illustrated in Figure 10 below, they also talked about continuation-only factors, which included aspects such as the price of mephedrone (*setting*), the enjoyable effects and the pain relief ability of mephedrone (*drug*) and the development of an addiction for mephedrone (*set*), neither of which were cited as contributing to initiation. This supports

Coomber et al.'s (2013) point that reasons for initiation do not explain entirely why people continue using drugs, and again gives weight to the approach employed here, which focuses on identifying motivations for initiation and persistence separately. Each of the factors cited above will be considered in turn and any relationship between them will be highlighted where apparent.

Figure 10 - Persistence factors for mephedrone



Setting

The *setting* factors that contributed to participants' decisions to persist in the use of mephedrone were mainly related to drug-markets circumstances and these are identified and discussed below.

Availability

The only motivation for continuing the use of mephedrone that was also mentioned as a reason for initiation was a *setting* factor, namely this substance's widespread availability. In this regard, my findings are consistent with those of similar studies on this topic (see for example Van Hout and Bingham, 2012; Chadd, 2013; Csak et al., 2013; MacLeod et al., 2016), where availability of mephedrone on the local drug market is often cited as one of the most significant motivations not only for mephedrone initiation, but also persistence. In addition to that, my

participants were able to articulate a more nuanced meaning of the word ‘availability’. While most of them did report that ‘availability’ referred to the high prevalence of mephedrone on the local drug market, others explained that ‘availability’ referred to the fact that mephedrone was available among their circle of drug-using friends, thus making it accessible to them. The latter observation is consistent with Allen (2016) and Coomber et al.’s (2013) suggestions that drug-use patterns tend to develop in friendship groups, but also with Faupel’s (1991) point that ‘drug availability’ refers not only to the prevalence of a drug on the market, but also to the ease of access to this substance via contact with people who can supply the drug to the prospective user.

Price

The other *setting* variable mentioned by participants as having contributed to their decision to continue using mephedrone was this drug’s low street price, which they perceived to be a direct consequence of mephedrone’s wide availability. This finding confirms what Csak et al. (2013), MacLeod et al. (2016) and Van Hout and Bingham (2012) found in similar studies that looked at the use of mephedrone among problem drug users and demonstrates that economic models of drug use (Goldstein, 1985; Weatherburn et al., 2003), according to which there is an inverse relationship between the availability and price of traditional illicit drugs, are valid in the case of mephedrone too.

Both the problem drug users and drug experts interviewed in this research reported that mephedrone was not only cheap itself, but also cheaper than heroin, amphetamine and cocaine. These individuals often explained that they continued using mephedrone because they perceived it as a more ‘cost-effective’ drug when compared to its traditional counterparts, which is an indication that there were instances during persistence when these problem drug users acted as rational economic actors (for a similar point see Van Hout and Brennan, 2011:376; MacLeod et al., 2016). According to the same participants, the cost-efficiency of mephedrone was not related only to its price – a *setting* factor, but also to its pharmacological effects – belonging to the *drug* dimension. The better price and better effects of mephedrone, when compared to other traditional drugs, made participants consistently choose the former over the latter.

Drug

Apart from the above *setting* variables, participants also talked about *drug*-specific factors which contributed to their mephedrone persistence, and these are discussed in more detail below.

Enjoyment of the effects

One of the primary reasons why participants reported to have continued their use of mephedrone was because they liked the pharmacological effects produced by this substance, which is consistent with the findings of Van Hout and Bingham (2012), Racz et al. (2015) Kapitany-Fevony et al. (2015) and MacLeod et al. (2016), who also identified this as a common motivation for mephedrone persistence among similar samples of problem drug users in other countries. What I managed to do in addition to these studies was to find out specifically what my participants liked about the pharmacological effects of mephedrone. For instance, some respondents mentioned that they particularly enjoyed the fact that the mephedrone ‘high’ reminded them of the pleasurable effects of ecstasy, a substance that they described as having been very popular in South Wales in the 1990s and which most of them used frequently back then. Others praised the intensity of mephedrone effects, which they reported to be in stark contrast with what they were used to recently from traditional illicit drugs such as heroin and amphetamines.

Finally, and very importantly, a few participants reported that at appropriate dosages, mephedrone could generate a ‘gouching’ effect similar to the one produced by heroin. This latter point suggests that long-term heroin users’ decisions to replace this drug with the stimulant mephedrone would make sense not only for practical reasons related to availability and cost, but even from a pharmacological point of view, something that authors such as Csak et al. (2013), Kapitany-Fevony et al. (2015) and Racz et al. (2015) thought to be improbable.

Pain relief

The other popular *drug*-specific motivation for continued mephedrone use reported by both drug users and experts was the fact that it successfully alleviated the pains and aches associated with the heroin withdrawal symptoms. In the context of the heroin shortage that hit the South Wales market in 2012-2013, this property of mephedrone was highly appreciated and hence it is not surprising that many participants consistently cited this as a reason why they continued using this drug. Extensive searches of the literature failed to identify any study that reported

this as a factor for persistent mephedrone use, which is surprising given the weight that both drug users and drug experts who took part in this research attributed to this issue.

Set

In addition to the *setting* and *drug* factors discussed so far, the data suggest that the participants' *set* was an equally important component for their persistence in the use of mephedrone, and the influence of this third dimension from Zinberg's (1984) framework is explained further below.

Addiction

Drug users and experts alike indicated that the continued use of mephedrone was also a result of the fact that problem drug users became addicted to this drug. Elements that were considered indicative of addiction were: 1) an increased tolerance for the drug, 2) signs of physical and/or psychological dependence, and 3) the presence of withdrawal symptoms following cessation of use (Hanson et al., 2012:58).

The fact that participants described a rapid increase in their bodies' tolerance for mephedrone was not surprising. This aspect of mephedrone use is often cited in the literature and is mainly attributed to the short duration of its effects and mephedrone's 'moreish'⁹ character (O'Neill, 2014; MacLeod et al., 2016), which tends to be a common feature of stimulant drugs in general (McElrath and O'Neill, 2011; Moore et al., 2011). However, the fact that participants talked about having witnessed or felt signs of physical dependence is a novelty. Previous studies among similar cohorts documented mephedrone users' potential to become psychologically dependent on this substance (see for instance van Hout and Bingham, 2012; O'Neill, 2014; MacLeod et al., 2016), but there were no reports of users developing a physical type of dependence to this drug. Finally, and again new for this field, was the fact that participants explicitly reported experiencing mephedrone withdrawal symptoms following cessation of use, which they often described as being similar to those generated by heroin.

The development of addiction to mephedrone was important in terms of the impact it had on participants' overall drug use and it was closely linked to the patterns of mephedrone use during persistence. During a period of occasional use, participants did not experience any of the symptoms associated with addiction and mephedrone was regarded as a secondary substance, which supplemented their normal drug use repertoires (also found by Moore et al., 2013). In contrast, during periods of problematic use of mephedrone, participants reported that they

⁹ Meaning that it makes you want more (O'Neill, 2014:427)

completely stopped using their primary drug of choice and replaced it with mephedrone, which is consistent with the findings of Van Hout and Bingham (2012), Csak et al. (2012), Racz et al. (2013), Peterfi et al. (2014), and Kapitany-Fevony et al. (2015), who all conducted studies among similar cohorts of problem drug users.

Summary

To sum up, a significant number of those participants who tried mephedrone went on to continue using this drug. *Setting* factors such as the continued availability of mephedrone and its low price, combined with *drug* variables such as the pleasant mephedrone effects and its ability to relieve pain related to withdrawal symptoms, and the fact that participants became addicted to mephedrone (*set*), were all influential in individuals' decisions to persist in using mephedrone. As opposed to the case of mephedrone initiation, where *setting* factors had the greatest weight, none of the above components appeared to have precedence over the others in the case of mephedrone persistence.

In the following section I move on to discuss my participants' continued use of synthetic cannabinoids and, as above, try to establish the relative importance and the possible interactions between *drug*, *set* and *setting* factors in these individuals' drug consumption decision-making processes.

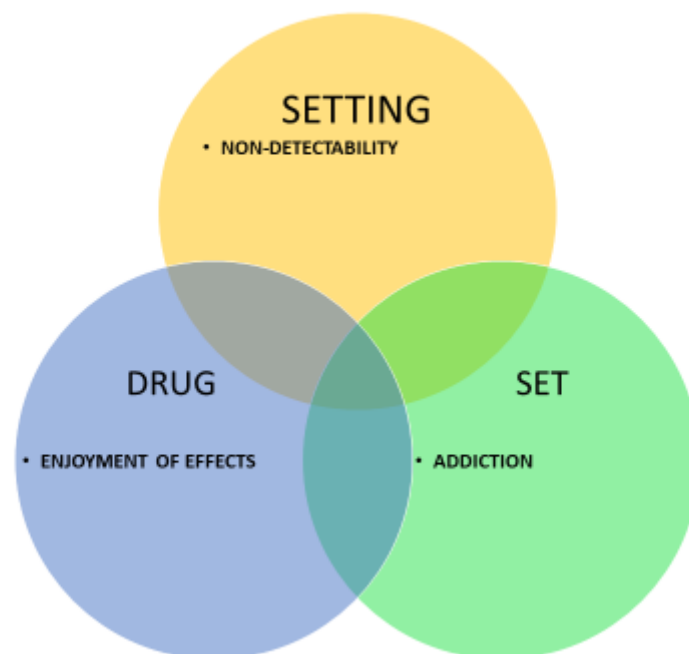
Synthetic cannabinoids persistence

The existing literature on the use of synthetic cannabinoids among problem drug users is scarce and most of these studies focus on prison samples (e.g. Ralphs et al., 2017; Baker, 2015; Walker, 2015), with only a few focusing on participants from the community. Moreover, with one notable exception (i.e. MacLeod et al., 2016), these pieces of research investigate motivations for synthetic cannabinoids use in general and do not distinguish explicitly between initiation and persistence. As argued earlier with regard to mephedrone, this approach is not ideal as it most likely yields unrefined and even inaccurate findings. By investigating the motivations for persistence in synthetic cannabinoids use separately from initiation and among a cohort of problem drug users who were not incarcerated, this current study fills an important gap in the literature and also refines some of the existent knowledge on this subject.

Only two of the seventeen participants who ever tried synthetic cannabinoids went on to use these drugs beyond the initiation stage and this has impacted upon the amount of data available on persistence. Nevertheless, these participants provided rich enough accounts on this issue, which in turn enabled me to have a good, in-depth understanding of their continued use of

synthetic cannabinoids. As shown in Figure 11 below, these individuals painted a complex picture of their decision to persist in using these drugs, in which factors from all the three dimensions of Zinberg's (1984) theoretical framework played a role. In terms of *setting* variables, the non-detectability of synthetic cannabinoids through routine drug tests, which was previously cited as an initiation factor, was also mentioned as a motivation for continuation. Enjoyment of the effects (*drug*) and the development of addiction to synthetic cannabinoids (*set*) were equally important determinants for participants' continued use of these drugs. Each of these factors and their interactions are discussed in more detail below.

Figure 11 - Persistence factors for synthetic cannabinoids



Setting

The sole *setting* variable that contributed to participants' decision to continue using synthetic cannabinoids was related to drug-testing policies and practices, and this is addressed in detail below.

Non-detectability through drug tests

Some of the reasons why participants continued using mephedrone were similar to those why they started taking it. In the case of synthetic cannabinoids, previous research among problem drug users highlighted that such overlapping reasons (i.e. that were cited for both initiation and

continuation) were these drugs' wide availability (Wagner et al., 2014; MacLeod et al., 2016; Ralphs et al., 2017), their legal status (Wagner et al., 2014) and the fact that they were not detectable through routine drug tests (Sutherland et al., 2017). According to participants in this research, the only common motivation for both initial and continued use of synthetic cannabinoids was a *setting* element: the fact that these substances did not show up in routine drug tests. These individuals were subjected to these kinds of tests on a regular basis and failing them would have had significant consequences: either being sent to prison or getting 'kicked out' of drug treatment. Unsurprisingly then, this constituted an important incentive for these participants to continue using synthetic cannabinoids and this is consistent with the findings of other studies that investigated the use of synthetic cannabinoids among problem drug users either in prisons (see for instance RAPt, 2015; Walker, 2015), or in the community (Sutherland et al., 2017).

Drug

The *drug* dimension was also important in participants' decision to continue using synthetic cannabinoids and its influence is discussed further next.

Enjoyment of effects

Both of those participants who entered the persistence phase reported that they liked the effects of synthetic cannabinoids and this was one of the reasons why they carried on using them. This finding is consistent with studies of both traditional (Boys et al., 2001; Novacek et al., 1991) and new (Corazza et al., 2014; Werse and Morgenstern, 2012; Soussan and Kjellgren, 2016) drugs that cited 'enjoyment of effects' as a key incentive for individuals to continue using psychoactive substances. Consistent with MacLeod et al.'s (2016) study of problem drug users in Scotland, the vast majority of my participants (n=15/17) stopped using synthetic cannabinoids immediately or shortly after initiation and the main reason for doing so was the fact that they disliked these drugs' effects. To sum up, synthetic cannabinoids' pharmacological effects are far from being the most popular among the problem drug users I studied. But, those who did enjoy these effects considered this *drug* component an important motivation to continue using these substances.

Set

In addition to the above *setting* and *drug* factors, participants' *set* was an equally important component for their persistence in the use of synthetic cannabinoids. The role of this dimension in participants' decision-making processes is explained further below.

Addiction

According to an increasing number of studies (e.g. Schifano et al., 2009; Gunderson et al., 2012; Spaderna et al., 2013; Van Hout and Hearne, 2016; MacLeod et al., 2016; Ralphs et al., 2017), users of synthetic cannabinoids can develop an addiction to these drugs, and the participants who continued using synthetic cannabinoids in my study confirmed this hypothesis. These individuals associated the drugs' addictiveness with the development of physical and psychological dependence, having felt cravings for the drugs and having experienced withdrawal symptoms, which they perceived as similar to those produced by heroin, albeit not as intense.

The development of addiction to synthetic cannabinoids was important in terms of its impact on participants' overall drug use and it was closely related to the patterns of synthetic cannabinoids use during persistence. During a period of occasional use of synthetic cannabinoids, participants did not experience any of the symptoms associated with addiction and synthetic cannabinoids were considered secondary substances which supplemented their normal drug use repertoires (also reported by MacLeod et al., 2016; Wagner et al., 2014). In contrast, during periods of problematic use of synthetic cannabinoids, participants reported that they completely stopped using their primary drug of choice and replaced it with these new drugs. This displacement phenomenon involving a switch from a traditional illicit drug to synthetic cannabinoids was also reported by Maude (2017), Perraudin (2017) and Robb (2017) among similar cohorts of problem drug users in the UK, and by Van Hout and Hearne (2016), Patrick et al. (2015) and Vandrey et al. (2012) among samples of recreational drug users.

Summary

To sum up, *drug*, *set* and *setting* variables equally contributed to participants' decision to continue using synthetic cannabinoids and less interactions between these three dimensions were observed on this occasion. Generally, the findings regarding participants' motivations for persistence were consistent with the literature on this subject, which is still in its infancy. The non-detectability of synthetic cannabinoids through routine drug tests continued to be an important incentive for participants to continue their use of these drugs, having also been mentioned as a motivation for initiation. The enjoyment of effects and the development of addiction, generally two of the key reasons for continued use of any drug, were also mentioned by my participants as having contributed to their persistent use of synthetic cannabinoids.

The remaining sections of this chapter focus on participants' last stage in their use of NPS, namely their desistance from the use of these drugs.

Desistance

If the initiation and persistence in the use of NPS by problem drug users are under-researched topics, the cessation of use of these drugs by this particular population is even more overlooked in the literature (for a few notable exceptions please see MacLeod et al., 2016; Kassai et al., 2017). By focusing specifically on the reasons why long-term problem users of traditional illicit drugs decided to stop taking mephedrone and synthetic cannabinoids respectively, this research represents one of the pioneering attempts at the investigation of this subject with important academic and practical implications (i.e. potentially informing prevention, recovery, and/or harm reduction practices related to these two NPS).

In the following sections I initially discuss how *drug, set and setting* factors influenced participants' initial decision to stop using mephedrone and synthetic cannabinoids either shortly after initiation or after a period of continued use of the drug. Subsequently, I focus on the role the three dimensions of Zinberg's (1984) theoretical framework played in participants' decision to maintain their desistance from these two NPS, which, according to the literature (see for instance Best et al., 2008; 2010), is likely to be underpinned by different factors than the initial decision to stop. As earlier, mephedrone and synthetic cannabinoids are discussed separately.

Mephedrone desistance

All participants who used mephedrone reported that they stopped using it either before I started my research, or by the time the data collection ended. For analysis purposes, participants who desisted were divided into two groups depending on how long it took them to stop their use of mephedrone. Some, whom I named non-persisters, ceased using mephedrone shortly after their initiation, either after the first use or after only a few episodes of consumption. Others though, who entered the persistence phase of their use of mephedrone, stopped using mephedrone after a longer period of time. This distinction is important because the findings revealed important differences between these two groups in terms of their motivations for desistance. In the case of non-persisters, the *drug* dimension proved to be the key and sole element that made participants stop using mephedrone. However, those participants who were classed as persisters drew a much more complex picture regarding their decision to stop, in which elements from all dimensions of Zinberg's (1984) *drug, set, setting* framework were present and interacted between each other. Each of these are further discussed below.

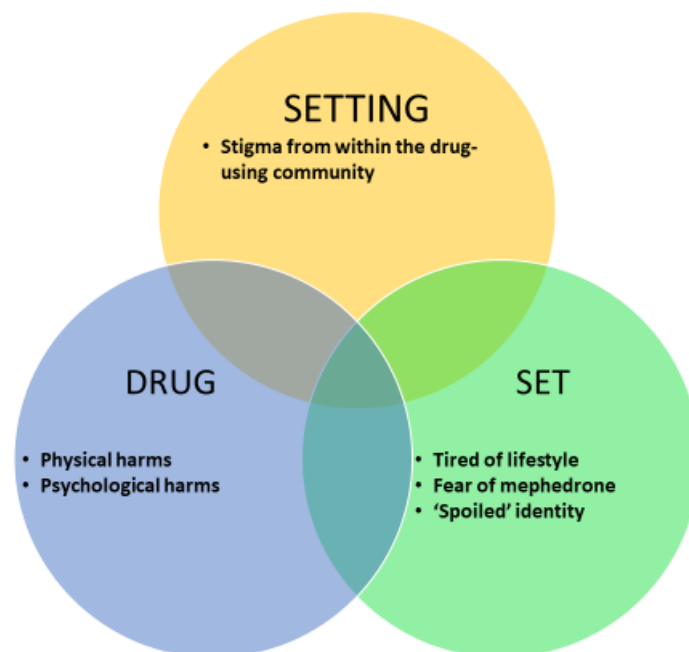
Non-persisters' motivation for stopping the use of mephedrone

Just over a third of those participants who ever used mephedrone (n=8/23) stopped using it shortly after initiation, without becoming persistent users. These individuals explained that the sole reason why they took the decision to stop using mephedrone was because they did not like its effects (*drug*). When asked to describe why they did not like the effects of mephedrone, participants painted a rather complex picture. These problem drug users reported that they: did not enjoy the intrinsic effects of mephedrone, experienced negative consequences after use, preferred depressant drugs, or perceived the effects of mephedrone as non-compatible with their lifestyle (*set*). After thorough searches of the literature it was clear that MacLeod et al.'s (2016) was the only study among a similar cohort of problem drug users which documented the stopping of mephedrone use shortly after initiation. According to these researchers, their participants also stopped taking mephedrone because they did not enjoy its effects, but they only referred to disliking the intrinsic effects of this drug. The findings of this thesis therefore add to this scarce literature and emphasize the importance of further investigations into this phenomenon.

Persisters' motivations for stopping the use of mephedrone

From the total of twenty-three participants who reported ever using mephedrone, almost two thirds (n=15) continued using this drug for a longer period of time after initiation and therefore entered the persistence phase of use. As illustrated in Figure 12 below, when asked why they stopped, the mephedrone persisters referred to the physical and psychological harms of mephedrone (*drug*), the fact that they became tired of the mephedrone lifestyle, developed a fear towards mephedrone and realised their identity was 'spoiled' by the continued use of this drug (*set*), and also that mephedrone and its users had started to be stigmatised by the drug-using community (*setting*). The relative importance of each of Zinberg's (1984) dimensions and the interactions between them are discussed next.

Figure 12 - Desistance factors for mephedrone persisters



Drug

The *drug* variables mentioned by participants as having contributed to their decision to stop taking mephedrone were related to the negative effects of the persistent use of this drug, and these factors are discussed in detail below.

Physical harms

Participants explained that they ceased using mephedrone after they became aware of the physical harms inflicted by this substance, which is generally one of the most common reasons why people stop using drugs in general (see for instance Blomqvist, 1996; Best et al., 2008). Examples of such harms from mephedrone reported by participants included chest, kidney and heart problems, serious damage to injecting sites, rapid and significant weight loss, severe infections and amputations. Similar explanations for mephedrone desistance were documented by Van Hout and Bingham (2012) and MacLeod et al. (2016), but neither of these authors identified such a multitude of negative physical effects produced by mephedrone among their participants.

Psychological harms

The problem drug users interviewed in this research also indicated that they stopped using mephedrone after they became aware of the psychological harms generated by this substance, again a popular motivation for desistance from any type of drug, including heroin (Best et al.,

2008), amphetamine (Leslie et al., 2016), and cocaine (Cunningham et al., 1999; Waldorf et al., 1991). These individuals highlighted the rapidity with which they developed mental health problems following continued mephedrone use (e.g. psychosis), mood-swings, elevated levels of aggression (both verbal and physical), and numerous episodes of judgement impairment. The latter was of particular concern for participants who reported getting involved in risky behaviours that they had previously been able to avoid before starting using mephedrone. The role of long-term psychological harms inflicted by mephedrone in stopping the use of this substance was also mentioned by Van Hout and Bingham (2012) and MacLeod et al. (2016) in their studies with problem drug users in Ireland and Scotland, respectively. However, this current study documented a wider and more detailed range of such negative psychological consequences, thus painting a different and more painful picture of the potential damage inflicted by mephedrone on its persistent users.

Set

Participants' *set* had an equally important contribution to their decision to stop using mephedrone. The variables from this dimension cited by both drug users and experts were: becoming tired of the lifestyle, having developed a fear of mephedrone and acknowledging that their identity had become 'spoiled' as a result of continued mephedrone use. Each of these are addressed in turn next.

Tired of lifestyle – 'I've worn the t-shirt and now I'm tired of it all'

A *set* motivation often encountered in the drug misuse literature for desistance, and mainly with regard to heroin, is becoming tired of the drug use lifestyle (see for instance Best et al., 2008, McIntosh and McKeganey, 2000). Consistent with this perspective, some participants in this research also mentioned that one of the reasons why they stopped using mephedrone was because they got tired of the mephedrone-specific lifestyle, something that has not been reported elsewhere previously. Nevertheless, some problem drug users I interviewed explained that becoming tired of their lifestyle was mainly about their age, and not necessarily about mephedrone itself. At best, they explained that their use of mephedrone accelerated their acknowledgement of having become tired of their overall life on drugs. More research is therefore needed to establish with certainty whether mephedrone users stop using this drug because of the lifestyle associated with this particular drug or whether this decision is taken as a result of maturation. Also, further research could investigate if people grow out of the mephedrone lifestyle more quickly than the heroin lifestyle.

Fear of mephedrone

The drug users I interviewed and observed during the microethnography described another way in which their *set* (i.e. their attitude toward mephedrone) contributed to their decision to stop using this drug. Participants explained that they developed a genuine fear of mephedrone as they became aware of the severe physical and psychological health implications of using this drug persistently. For some drug users, the sentiment was prompted by the realisation that they did not know what the real content of mephedrone was, while for others this was caused by the aforementioned judgement impairment produced by mephedrone. Previous studies that investigated the use of mephedrone identified at most a ‘concern’ among users regarding the possible adulteration of this drug (see for instance Van Hout and Brennan, 2012), but the development of a genuine sentiment of ‘fear’ of mephedrone has not been articulated elsewhere. In this instance, it seems that these individuals’ *set* was clearly influenced by *drug* factors (i.e. the unknown content and the effects of adulterated mephedrone), highlighting once more the complex relationship between the different *drug, set, and setting* variables and their role in informing drug consumption decision-making processes among this cohort.

Spoiled identity - ‘I didn’t like the person it made me become’

The frequent instances of total loss of control over their behaviour while intoxicated with mephedrone, along with the awareness of the serious physical and psychological harms inflicted by this drug (both belonging to the *drug* dimension) prompted participants to reflect on their overall situation as drug users. These individuals acknowledged that their persona (i.e. *set*) changed because of the use of this substance and that they became someone that they did not recognise or like anymore. At this point, these participants decided that they needed to stop using mephedrone. This is similar to what Biernacki (1986), Granfield and Cloud (1996), and McIntosh and McKeganey (2001) found in their studies of people recovering from heroin addiction. These authors acknowledge that the decision to stop using heroin was prompted by the users’ recognition that their identity had become ‘spoiled’, and hence unacceptable. The current data suggest that this applies to mephedrone too, something that has not yet been reported elsewhere. The only other instance where mephedrone users reported that their continued use of this drug ‘transformed the[ir] perceived ‘personality’ and self-image’ was in a study by Racz et al. (2015:183) conducted in Hungary among a similar sample, comprised of problem users of heroin and/or amphetamine. However, in the case of Hungarian users, the acknowledgement of this change in their personality did not prompt them to stop using

mephedrone, but instead it led them to change the location where they consumed the drug: '[they] moved from public places to safer and more hidden flats'.

Setting

Participants' social setting also contributed to their desistance from mephedrone use. The data here suggest that a rejection of mephedrone from within the drug-using community played a significant role in problem drug users' decision to stop using it, which is what I turn to next.

Stigmatisation of mephedrone and its users by the drug-using community

One of the most important findings of this research, and which emphasizes explicitly the complex interactions between *drug, set and setting* elements, was the role played by stigma in my participants' use of mephedrone. The *drug* variables of physical and psychological harms were key in prompting changes in my participants' social *setting* in that they led to the development of a stigma for mephedrone and its users within the community of problem drug users in this study. In turn, this negative labelling regulated my participants' *set* in that it informed both their attitudes and actions concerning their decision to stop using mephedrone. These dynamics are explained in more detail below.

As documented in Chapter Six, some of the problem drug users I interviewed reported that they started using mephedrone because at that time, unlike other traditional illicit drugs such as heroin, amphetamine or crack cocaine, this substance was not stigmatised either by the general population, or by the community of drug users (also reported by Van Hout and Bingham, 2012). However, when the aforementioned physical and psychological harms this drug was able to inflict on those who used it persistently became apparent, things started to change and participants reported that mephedrone gained a negative reputation within the community of drug users. This stigma attached to mephedrone was evident during the interviews with both problem drug users and drug experts and also during the microethnography: when participants talked about this substance, they often referred to it as 'a dirty drug'.

The stigma attached to mephedrone itself was transferred to its users as well. It is well documented that long-term drug users are one of the most stigmatised groups among the general public (Herek, 1999; Parker and Aggleton, 2003; White, 2009; Lloyd, 2010; UK Drug Policy Commission, 2010), but it became apparent that with regard to mephedrone this labelling process occurred also from within the population of problem drug users themselves, something previously described as the 'propensity by drug users to derogate other drug users' (Garfinkel, 1956:420). Participants often discussed existing hierarchies within this circle of

individuals (Sutter, 1966) and in this context they placed mephedrone users on a par with, or even below, heroin users. O'Neill (2014) is the only other author who previously documented the existence of a stigma for mephedrone and its users. She also highlighted that this stigma was generated by and operated within the population of drug users themselves, but her participants (who were recreational rather than problem drug users) did not say anything about whether this stigma led to the formation of any hierarchies among members of the drug-using community, as my participants did.

My data also suggest that the stigma attached to mephedrone and its users was used as a neutralization technique by some of the problem drug users I studied. Several former users of mephedrone, as well as users of other drugs such as heroin, crack cocaine and amphetamine who never used mephedrone, often placed those who were still using this drug in a lower category than themselves. This enabled these individuals to justify their own drug use without serious damage to their self-image and also made them feel better about themselves. Similar findings were reported for instance by Copes et al. (2014) for methamphetamine and Furst et al. (1999) for crack cocaine, but this issue was not previously documented in the case of mephedrone.

Former users of mephedrone interviewed and observed in this research tended to 'look down on' those who still used the drug. They explained that they had this attitude because these individuals continued using mephedrone despite the clear indication that it was a very dangerous substance whose track record of harms was unquestionable. In the words of one participant: *'This [the harm done by mephedrone] isn't just bullshit like you read somewhere, it's not just Youtube, this is fact.'* Consequently, they regarded persistent mephedrone users as lacking intelligence.

Mephedrone users were also labelled 'dirty' because they often broke some of the most important internal moral norms of the population of long-term drug users (Simmonds and Coomber, 2009). Earlier, Faupel (1987:395) acknowledged the existence of a 'distinctive set of ethical standards held in common by many 'junkies'', and also that these individuals often 'violate the[se] ideal norms of their own subculture'. While under the influence of mephedrone, participants frequently reported having lost control over their actions and consequently found themselves in breach of these moral standards. As it became apparent during the interviews and the microethnography, mephedrone users often disregarded safe-injecting practices, did not dispose properly of injecting equipment, got involved in non-protected sex even though

they knew they were carrying blood borne viruses, and started to commit crimes they perceived as unacceptable.

According to the drug experts interviewed in this research, the stigmatisation of mephedrone and its users played a major role in problem drug users' decision to stop using this substance, mainly because it generated a rejection of this substance from within the population of drug users themselves. A useful concept for understanding how the labelling of mephedrone and its users as 'dirty' contributed to participants' decision to cease using this drug is Biernacki's (1986) 'negative contexting'. Biernacki explained that one of the strategies used by his participants to enable them to stop using heroin was to constantly remind themselves of the negative consequences of drug use. The mechanism through which my participants used the concept of negative contexting as a tool to stop using mephedrone was to label it as a 'dirty' drug and therefore constantly remind themselves of what this label entailed. This is another novelty in the field as Biernacki's (1986) concept of 'negative contexting' has not been utilised previously in any discussions related to desistance from mephedrone use.

Summary

A third of those participants who tried mephedrone stopped taking this drug immediately or very shortly after initiation and were therefore called non-persisters because they did not enter the persistence phase of their mephedrone use. These individuals' decision to stop taking mephedrone was solely prompted by *drug* factors: they disliked the pharmacological effects of this substance. Nevertheless, the vast majority of those participants who tried mephedrone did continue using the drug after initiation and were therefore called persisters. These participants' decision to stop using mephedrone was a complex one, influenced by factors from all of Zinberg's (1984) dimensions, which on this occasion interacted significantly between each other.

Maintaining desistance from mephedrone

In the literature on desistance from drug use, a distinction is made between the decision to stop and the maintenance of this decision, which it has been noted are different phenomena and generally underpinned by different factors (Best et al., 2008). Having covered earlier the participants' decision to stop, below I move on to discuss the factors that helped these individuals sustain their desistance from mephedrone, a topic which is yet to be addressed in the literature.

It is important to note that the drug users I interviewed and observed during the microethnography followed two trajectories in terms of their drug use following their desistance from mephedrone. The overwhelming majority of participants (86%, n=20) resumed their previous drug-using patterns, while the rest stopped taking drugs altogether and became drug-free (14%, n=3). The data collected here suggest that there are important differences between these two groups in terms of factors for sustained desistance from mephedrone and because of this, each is discussed separately below.

Factors for maintaining desistance from mephedrone among continuing drug users

When they were asked to explain what contributed to their sustained abstinence from mephedrone, those individuals who continued using other drugs firstly pointed to changing their social *setting*, namely moving away from mephedrone-using friends or acquaintances. This is a common theme for maintaining desistance from traditional illicit drugs such as heroin (see for instance Best et al. 2008, 2011), which seems to apply to mephedrone as well.

Secondly, participants talked about factors at the individual, or *set* level. These participants explained that an effective technique to sustain their mephedrone abstinence was to constantly remind themselves about the negative effects of mephedrone (i.e. ‘negative contexting’). Furthermore, having witnessed the harms inflicted by mephedrone on themselves or others, these participants reported having come to the realisation that it was safer (both physically and psychologically) for them to go back to their previous repertoires of drug use. This is consistent with what Van Hout and Bingham (2012) and Racz et al. (2015) reported among similar cohorts of problem drug users in Ireland and Hungary, respectively. In addition to these authors’ findings, my participants explained that once they realised that moving back to their former drug-using patterns was a viable and effective harm-reduction strategy, they promoted this message to other fellow problem drug users, whom they thought were at risk of suffering from the potential harms of mephedrone. A similar attitude was reported by Norman et al. (2014), but these authors did not refer to mephedrone specifically; rather, they discussed NPS in general.

Factors for maintaining desistance from mephedrone among complete desisters

Three participants reported that after stopping mephedrone use, they stopped using drugs altogether. These individuals therefore managed to maintain their desistance not just from mephedrone, but also from all the other drugs they had previously used and subsequently became drug-free. A particular feature of these respondents that distinguishes them from those

who stopped using mephedrone but continued using other drugs was that all of them described having reached what is often referred to in the literature as 'rock bottom' (Biernacki, 1986).

When questioned about the factors that contributed to their sustained abstinence from all the drugs they used previously (including mephedrone), these participants pointed exclusively to *setting* factors, which acted upon these individuals' *set* too. They explained that the key catalyst for maintaining their drug-free status was the fact that they received an appropriate drug treatment for their problems. Participants cited drug counselling based on cognitive behavioural treatment and residential rehabilitation programmes based on Christian values as examples of treatments that helped them achieve long-term abstinence.

Furthermore, the re-establishment of lost family ties after achieving abstinence was also mentioned by participants as a motivating factor for their sustained desistance. Families' role in drug users' successful maintenance of desistance is well documented in the literature, with commentators generally agreeing that family members could be either a negative or positive influence. The current findings are consistent with Robins & Rutter's (1990) suggestions that a supportive, drug-free family, is a significant contributor to a sustained abstinence from drugs.

Finally, participants acknowledged that another factor that contributed to their continued abstinence from mephedrone and other drugs was finding a job and, interestingly, these jobs were often offered or facilitated by drug services during treatment. Participants explained that employment (*setting*) was important because it allowed them to have a structured, stable routine which kept them away from drugs (also found by Hunter and Farrall, 2015), provided them with a reliable source of income and it also increased their self-esteem (*set*). This finding is not surprising given that involvement in pro-social activities such as employment has long been identified as an important contributing factor for sustained drug desistance (see for instance Maruna, 2008; Hunter and Farrall, 2015).

The accounts of these three participants who managed to become drug-free after their experience with mephedrone also seem to confirm the importance of 'recovery capital'¹⁰ in someone's attempt to become abstinent from drugs and maintain this abstinence long-term (Best et al., 2011). In accordance with Cloud and Granfield's (2008) suggestion, my participants who had access to recovery capital (i.e. drug treatment, supportive family and

¹⁰ 'Recovery capital' is the sum of resources that individuals can draw upon to initiate and sustain processes of addiction recovery and it has four key components: 'physical capital' (e.g. income, savings, investments, property); 'cultural capital' (e.g. values, beliefs and attitudes that promote social norms); 'human capital' (e.g. education, knowledge, skills, hopes, health and heredity); and social capital (e.g. relationships, including family, friends and broader social networks) (Cloud and Granfield, 2001).

employment) appeared better placed to overcome their substance misuse-related problems than those who did not have access to such resources.

Summary

Maintaining the decision to stop using mephedrone is underpinned by different factors than the initial decision to stop using this drug. Those participants who returned to their previous repertoires of drug use after quitting mephedrone explained that they were not using mephedrone anymore due to a combination of *setting* and *set* factors: they moved away from mephedrone-using friends, they negatively contextualised mephedrone use and perceived using traditional drugs as safer than mephedrone. Those respondents who stopped using any drugs after quitting mephedrone cited exclusively *setting* factors as being influential in their sustained desistance. From these, enrolment into an appropriate drug treatment was regarded as the crucial factor.

Having now covered all the relevant aspects regarding mephedrone desistance, I move on to discuss the same phenomenon in the case of synthetic cannabinoids.

Stopping synthetic cannabinoids use

Generally, the use of synthetic cannabinoids among participants in this study was temporary, with only one respondent still using this substance at the end of the 13-month data-collection period. As in the case of mephedrone, participants were divided into non-persisters, who ceased using synthetic cannabinoids shortly after their initiation, and persisters, who used these drugs persistently before stopping.

After using Zinberg's (1984) *drug, set, setting* framework in the analysis it became apparent that it was *drug* and *set* factors that proved to be the key elements in participants' decision to stop using synthetic cannabinoids, and this was valid for non-persisters and persisters alike. However, the individual factors identified by members of these two groups were different. Each of these are discussed further below.

Non-persisters' motivations for stopping the use of synthetic cannabinoids

When asked to explain why they stopped using synthetic cannabinoids shortly after their initial episode/s of consumption, participants pointed to the unpleasant effects of these drugs and having rapidly developed a fear for synthetic cannabinoids. Each of these are explained in turn below.

'I didn't like it'

All but two of those participants who ever tried synthetic cannabinoids (88%, n=15) stopped using these drugs very shortly after they first tried them. The most popular reason for ceasing the use of these drugs among these participants was because they did not enjoy the immediate effects of synthetic cannabinoids (*drug*), which they perceived as either too strong or made them feel unpleasantly after taking them. This finding is not new, as similar *drug*-related motivations for stopping the use of synthetic cannabinoids shortly after initiation were also reported previously by MacLeod et al. (2016), Soussan and Kjellgren (2013, 2016), and Blackman and Bradley (2017).

Fear of synthetic cannabinoids

Participants' *set* also contributed to them stopping using synthetic cannabinoids shortly after initiation. These individuals explained that they decided not to use synthetic cannabinoids anymore because they began to feel scared about them. Many of these drug users described their initial consumption episode as a very unpleasant experience and explained that immediately after this episode they started to develop a fear of synthetic cannabinoids. According to these participants, this sentiment was prompted by the fact that synthetic cannabinoids seemed to exacerbate existing mental health issues, their contents were unknown, and/or their effects were unpredictable.

These findings are very similar to what Baker (2015) found among problem drug users in prison. Participants in Baker's study also described synthetic cannabinoids as dangerous substances and reported feeling fearful toward these drugs. Like my participants, these incarcerated drug users explained that their fear was prompted by the unknown contents of these drugs, a lack of knowledge about their long-term effects and because these drugs allegedly exacerbated some pre-existing mental health problems such as propensity for self-harm and/or paranoia. Despite these similarities, Baker's (2015) participants did not develop this fear of synthetic cannabinoids as quickly as my respondents; rather, these individuals became scared of synthetic cannabinoids after a consistent period of use of these drugs.

Winstock and Barrat (2013) in their study of Australian drug users also reported that their participants stopped using synthetic cannabinoids because they developed a sentiment of fear of these drugs. However, in the case of these Australian drug users, the fear was fuelled by the addiction potential of these substances and the witnessing of a number of suicides attributed to synthetic cannabinoids among some of their friends (this latter aspect was also reported by Van

Hout and Hearne, 2016). These different examples along with the data from my participants seem to validate the idea that synthetic cannabinoids do indeed instil a sentiment of fear (*set*) among its users, but it remains unclear when and what exactly prompts this sentiment to develop. Also, this shows once more the complex interactions between variables from different dimensions of Zinberg's (1984) framework. For some people this sentiment of fear (a *set* variable) was triggered by *setting* factors (e.g. witnessing a suicide attempt attributed to the use of synthetic cannabinoids), whereas for others by *drug*-specific elements (e.g. unknown content, unpredictable pharmacological effects, addictiveness).

Persisters' motivations for stopping the use of synthetic cannabinoids

Only one participant from the entire sample used synthetic cannabinoids persistently before deciding to desist and therefore the data available on this topic was very limited. This problem drug user explained that his decision to stop using synthetic cannabinoids was influenced by *drug* factors which are discussed below.

Physical and psychological harms

According to this participant the key determinants in his desistance from synthetic cannabinoids were the physical and psychological harms inflicted by these drugs. This is consistent with MacLeod et al.'s (2016) findings regarding factors for synthetic cannabinoids desistance among problem drug users in Scotland, and also with the wider literature, where physical and psychological harms are often cited as reasons for desistance among users of traditional illicit drugs (Shaffer and Jones, 1989; Blomqvist, 1996; Best et al., 2008).

Maintaining synthetic cannabinoids desistance

The same participant reported that he was able to maintain his abstinence from synthetic cannabinoids and explained that what helped him through this process was a permanent reminder of the damages he suffered while using these drugs (i.e. 'negative contexting') and being enrolled in residential drug treatment. It is clear though that the above information is very limited and therefore more research with persistent users of synthetic cannabinoids who managed to stop using these drugs is necessary in order to obtain a more complete understanding of this topic.

Summary

To sum up, all but two participants stopped using synthetic cannabinoids shortly after initiation and they attributed this decision to disliking the immediate pharmacological effects of these

drugs (*drug*) and having instantly developed a sentiment of fear towards these substances (*set*). Only one participant stopped using synthetic cannabinoids after having used these drugs persistently, and the key reasons for this decision were the physical and psychological harms produced by these drugs (*drug*). The same individual explained that he managed to sustain his abstinence from synthetic cannabinoids by negatively contexting these substances (*set*) and by enrolling into a residential drug treatment (*setting*).

Conclusion

The current study is the first attempt to adopt Zinberg's (1984) classical *drug, set, setting* theoretical framework to the investigation of the use of new psychoactive substances among a cohort of problem drug users. This approach was useful in that it helped provide a clear and detailed picture of how different factors from different dimensions influence complex drug consumption decision-making processes. Another novel aspect of this research was the fact that unlike many previous studies on the use of NPS, where all substances from this group are treated as a whole, mephedrone and synthetic cannabinoids were addressed separately. A final innovative element of this study, which is rarely found in the literature (with the exception of MacLeod et al., 2016), was the fact that participants were asked to articulate their motivation for their drug-using decisions at each stage of their use of these two NPS. More specifically, they provided explanations separately for initiation, persistence and desistance.

Initiation in the use of both mephedrone and synthetic cannabinoids was largely influenced by *setting* factors (i.e. local drug market circumstances, drug policy and social setting), which were regarded as more important than those related to the *drug* and/or the *set* of the participants. The current findings highlighted that these different variables interact between each other and in the case of initiation, *setting* variables seemed to have had a significant influence over the *set* and *drug* components.

Some of the factors that contributed to participants' initiation were similar for both mephedrone and synthetic cannabinoids (e.g. availability of NPS, curiosity). However, some important differences were also observed. Interestingly one of the *setting* variables, the legal status of new psychoactive substances, had an ambivalent role in these individuals' initiation. In the case of synthetic cannabinoids, their legality and consequent wide availability and ease of access constituted incentives for participants to experiment with these drugs for the first time. In contrast, for mephedrone, it was its illegality which attracted prospective users, who explained that they started using mephedrone for the additional thrill of doing something illegal. Moreover, the influence of peers was very important in the case of mephedrone initiation,

whereas for synthetic cannabinoids this factor was less significant. These few observations highlight why it is preferable to study new psychoactive substances individually rather than as an entire group of drugs, as the latter approach might conceal important differences.

Persistence in the use of both mephedrone and synthetic cannabinoids was underpinned by a variety of factors, belonging to all of the three dimensions of Zinberg's (1984) *drug, set, setting* framework. If in the case of initiation *setting* variables were the most significant, in the case of persistence or continuation all three components were equally important and this was valid for both mephedrone and synthetic cannabinoids.

Some overlaps were observed between mephedrone and synthetic cannabinoids in terms of participants' motivations for persistence. The enjoyment of effects and the development of addiction were cited as persistence factors for both drugs. Since these two determinants are generally key reasons why individuals continue using any drugs (Soussan and Kjellgren, 2016), it is not surprising that they apply to these two NPS as well. However, the remaining motivations for persistence were different for each drug, again supporting the idea that NPS should be studied individually, rather than as a whole group of substances.

Some overlaps were also observed between motivations for initiation and persistence. In the case of mephedrone, this drug's wide availability was cited as a factor for initiation and it continued to be a motivation for use during persistence as well. In the case of synthetic cannabinoids, the fact that these substances were not detectable through routine drug tests constituted a motivation for both initiation and persistence. However, despite these minor overlaps, reasons for initiation and persistence were different for both mephedrone and synthetic cannabinoids, thus demonstrating the merit of studying these two stages separately.

Given the scarcity of studies that examine problem drug users' desistance from NPS, most of the findings in this study are novel for this field. As a general observation, it seems that motivations for desistance documented previously in the literature with regard to traditional drugs such as heroin, amphetamine and crack cocaine could also be extended to mephedrone and synthetic cannabinoids. However, more studies are needed to gain a rounded and more detailed picture of what prompts problem drug users to stop using each of these new drugs.

The overwhelming majority of participants in this study only used mephedrone and synthetic cannabinoids temporarily, meaning that at some point after initiation they stopped using these drugs. Some stopped immediately or shortly after their initiation (i.e. non-persisters), while others stopped after having used these drugs for a longer period of time (i.e. persisters).

Distinguishing between these two groups of individuals was important because they provided different accounts as to why they decided to cease using mephedrone and synthetic cannabinoids. Generally, non-persisters' decision to stop was prompted by a dislike of the immediate pharmacological effects of the drug, and this held true for both mephedrone and synthetic cannabinoids. Persisters' rationales for stopping were more complex and factors from all of Zinberg's (1984) dimensions (i.e. *drug, set, setting*) were cited as contributors. The data suggest that the physical and psychological harms inflicted on users combined with them becoming tired of the lifestyle to prompt desistance for both mephedrone and synthetic cannabinoids. These were the only overlapping desistance factors between the two drugs.

Having now comprehensively discussed the main findings of this study, the next and final chapter of this thesis moves on to consider the implications of these findings for policy and practice, as well the study's methodological contributions to the literature.

CHAPTER TEN – Conclusions

Introduction

This concluding chapter brings the thesis together, building on the previous findings and discussion chapters and outlining its policy, practice and methodological implications. This study provided a qualitative exploration of the use of new psychoactive substances (NPS) among problem drug users in South Wales and it revealed that mephedrone and synthetic cannabinoids were the only NPS used by this cohort. Apart from establishing which are the specific NPS adopted by problem drug users, this research also sought to examine the motivations for, and characteristics of, participants' use of these two NPS. With this aim in mind, I examined why and how problem drug users initiate, continue and stop using NPS. More specifically, I firstly explored problem drug users' motivations for starting using these drugs, the circumstances of the first use and the route of administration at initiation. Secondly, I examined the factors that contributed to these individuals' decision to persist in the use of mephedrone and synthetic cannabinoids, as well as the patterns of use adopted during this time and the impact of the use of these drugs on their overall repertoires of drug use. Finally, I covered desistance from the use of the two NPS. Here I focused on problem drug users' motivations to stop using mephedrone and synthetic cannabinoids and the factors that enabled them to maintain this decision.

To achieve the above objectives, I used a combination of three qualitative research methods: (1) in-depth interviews with individuals who had a past or recent history of long-term use of heroin, amphetamine, and/or cocaine, the majority of which were repeated after an average of six months, (2) a microethnography of a busy drug treatment service operating in South Wales, and (3) in-depth interviews with experienced drug professionals.

The findings of this study make an important contribution to the literature on the use of NPS among problem drug users, being one of the few studies to explore this phenomenon in the UK. Zinberg's (1984) classical *drug, set, setting* theoretical framework was used to make sense of the findings, an approach that, to the best of my knowledge, has not previously been employed to explore the use of NPS. By investigating mephedrone and synthetic cannabinoids separately, this research provides a more refined and nuanced account of the use of NPS, at a time when many studies look at NPS as a whole group of substances rather than individually.

The chapter initially outlines the key findings that emerged from the research. This is then followed by a reflection on the study's impact on my own learning and growth experiences, and a discussion of the implications of these findings for policy, practice, and research methodology. Finally, the limitations of this research are presented, before suggesting some possible areas for future research arising from the current study.

Key Findings

As of February 2016, when the data collection for this research project was concluded, mephedrone and synthetic cannabinoids were the only NPS used by the problem drug users that I studied. From these two drugs, mephedrone was more popular. The main reason for this was the fact that participants overwhelmingly reported a dislike for the immediate effects of synthetic cannabinoids.

Initiation

Variables from Zinberg's (1984) *setting* dimension were the most important contributors to problem drug users' decision to initiate NPS use, and this was valid for both mephedrone and synthetic cannabinoids. Mephedrone initiation occurred in the context of a significant reduction in the availability of traditional drugs at a local level, and due to the influence of mephedrone-using peers, who facilitated access to this drug and provided positive reports about its properties and effects. Moreover, both drug users and drug experts explained that the lengthy process of getting an opiate substitute prescription in Wales at that time pushed problematic drug users towards experimenting with mephedrone. By contrast, the main reason for synthetic cannabinoids initiation was the fact that these substances were not detectable through routine drug tests, to which many participants were subjected on a regular basis.

Availability was another *setting* variable that influenced participants' decision to start using NPS and this was an initiation motivation valid for both mephedrone and synthetic cannabinoids. Mephedrone's availability among this cohort was closely related to its illegality in that it only became accessible to problem drug users once it started to be distributed by street-dealers. Prior to its criminalisation, this drug was only available from the internet, an avenue that was not easily accessible to this population due to their lack of required IT skills and possession of a valid credit card and/or a stable address for delivery. Conversely, synthetic cannabinoids were readily available in the specialised head shops that were still in operation when this research was concluded, and according to participants this was their main source of supply for these drugs.

Interestingly, the legal status of NPS (a *setting* variable) played an ambivalent role in participants' decision to initiate use of these drugs. In the case of mephedrone, participants reported that they started using it because it was an illegal substance. The fact that the UK Government criminalised mephedrone was perceived by the problem drug users in this study as a proof of this substance's status as a 'real drug', which was now worthy of their attention. A few participants also stressed that because mephedrone was illegal, their consumption episode was more enjoyable, explaining that this provided them with the increased pleasure of doing something illegal. However, in the case of synthetic cannabinoids, the same participants cited these substances' legality as one of the main reasons why they first tried them. Synthetic cannabinoids were regarded as a convenient alternative to cannabis and thus their legal status was considered an attraction rather than a deterrent.

Persistence

Moving on to the persistence stage, the research findings suggest that unlike initiation, where *setting* variables were the most significant, factors from all of Zinberg's (1984) dimensions appeared equally influential in participants' decision to continue using mephedrone and synthetic cannabinoids. Enjoyment of effects (*drug* variable) was the most cited reason for continuation for both mephedrone and synthetic cannabinoids, followed by the development of addiction to these substances (*set* variable), also valid for both drugs.

Setting variables such as availability in the case of mephedrone, and non-detectability through routine drug tests for synthetic cannabinoids, continued to be influential in participants' decisions to continue using these drugs, having also been cited as reasons for initiation.

Desistance

The use of both mephedrone and synthetic cannabinoids among the problem drug users I studied was temporary. At the end of the data-collection period, none of those who had used mephedrone were still using this substance and only one of those who had used synthetic cannabinoids was still consuming these drugs.

The data suggest that some participants stopped using NPS immediately after initiation, and these were classed as non-persisters. These individuals explained that their decision to cease using these drugs quickly after their onset was due to them not liking the immediate pharmacological effects of NPS (*drug* variable), and this applied to both mephedrone and synthetic cannabinoids.

The remaining participants (i.e. persisters) stopped using NPS after using these drugs for a longer period of time. The decision to desist from mephedrone use among persistent users of this drug was influenced by a combination of factors belonging to all of Zinberg's (1984) dimensions, which interacted between each other. These were as follows: the physical and psychological harms produced by this substance (*drug*), becoming tired of lifestyle (*set*), having developed a fear of mephedrone (*set*), the acknowledgement of a spoiled identity due to mephedrone use (*set*) and the stigmatization of mephedrone and its users from within the drug-using community (*setting*). In the case of synthetic cannabinoids the data suggest that problematic drug users stopped taking these drugs because of the physical and psychological harms associated with their use (*drug* variable). However, these latter findings should be treated with caution due to the limited data available for analysis on this topic.

Stigma (*setting*) played a significant role in problematic drug users' decision to stop using mephedrone. Mainly due to its visible and severe physical and psychological harms, this drug started to be labelled by the population of heavy-end drug users as a 'dirty drug', which in turn led to a rejection of mephedrone by members of this community. During this time, many participants reported instances when problematic drug users started to promote, among their peers, messages against the use of mephedrone, whilst emphasizing that they would be better off going back to using drugs that they perceived to be safer, such as heroin and amphetamine. It could therefore be argued that this peer-generated stigmatisation of mephedrone acted as a harm-reduction tool in that it actively contributed to problematic drug users' decision to stop using what they perceived was a very harmful substance.

The analysis of desistance maintenance factors (Humphreys et al., 1995) mentioned by participants revealed the importance of 'recovery capital' (Cloud and Granfield, 2001) for the successful long-term abstinence from drugs. Those who managed to maintain a drug-free status after stopping mephedrone use mentioned that the factors which enabled them to achieve this were: enrolment into drug treatment, a supportive family and having a stable employment, all of which are components of 'recovery capital' and *setting* variables. In a similar fashion, the only participant who managed to maintain desistance from synthetic cannabinoids and then become drug-free cited enrolment into drug treatment as the main factor for his achievement.

In summary, *setting* factors were most important in terms of initiation. Yet, a complex interplay of *set*, *setting* and *drug* were important for persistence and desistance. Of especial note were the role of stigma and 'recovery capital'.

Impact on researcher's learning and growth experiences

Conducting this study benefitted me in a number of ways. In this section, I reflect on how this piece of research impacted on my own learning about the topic and how it helped me develop as an academic and as a person.

The interviews with drug users, drug experts and, very importantly, the 13-month microethnography at 'Catfield' enabled me to gauge a deep understanding of the substance misuse phenomenon in South Wales. During this time, I became aware of the multiple struggles that the problem drug users I studied faced on a daily basis. These included, among others: 'scoring' (i.e. buying) drugs and having to pay for them, dealing with complex physical and mental health issues, having to deal with the permanent and palpable stigmatisation they were subjected to from the vast majority of the public, ensuring basic human needs such as food and accommodation, solving legal issues, managing problematic family relationships including parenting and loss of loved ones due to substance misuse, going through recovery and the difficulties of remaining abstinent in a social environment that was mostly conducive to, and supportive of, heavy-end drug use. At the same time, having spent a significant amount of time in a busy drug project and having talked to numerous drug professionals, I also became aware of the practicalities and difficulties of providing support to problem drug users from the practitioners' perspective.

Since I was a seminar leader for a 'Substance Misuse' module for undergraduate students at my university, which covered most of the above topics, the expertise I gained through this study made me more confident when talking to students about these issues and gave more legitimacy to the messages I was transmitting during my classes.

While negotiating access to participants and later on, while collecting data for the research, I met a wide range of experienced practitioners, and with most of them I developed good professional relationships. This network of contacts in the substance misuse field has already proved useful in a few other research projects that I have been involved in since finishing the data collection for this study, and I hope to further use the help of these invaluable gatekeepers in my future research plans.

Finally, but of no less importance, conducting this study also developed me as a human being. My views about drugs and drug users before starting this research were limited, or more accurately said skewed and mostly wrong, because they were informed exclusively by the interactions that I had with this population as an anti-drug police investigator in Romania

between 2005 and 2010. Having now observed and talked at length with problem drug users and consequently having learned and understood a lot more about their lives and day-to-day struggles, I became a more empathetic and less judgemental person. Moreover, because of this study, I am now motivated to do whatever I can to try to improve these vulnerable individuals' existence and the quality of support that they receive.

Implications for policy and practice

The results of this study have implications for policy and practice in the field of substance misuse, most of which are in the area of substance misuse treatment. Nevertheless, there are also other lessons to be learnt from this research in terms of drug policy, drug legislation, criminal justice interventions, prevention and harm-reduction initiatives.

Implications for treatment

In terms of substance misuse treatment, this study has implications for drug treatment delivery, content, and access. Each of these are considered below.

Given the significant role played by peers (i.e. social *setting*) in informing drug-consumption decision-making processes among this cohort (from initiation through to desistance), it would be sensible for any drug intervention targeting problem drug users' NPS use to try to incorporate the input of peer-mentors in their development, implementation and delivery. As seen in the case of the role played by the peer-generated stigmatisation of mephedrone for desistance decisions, peers act as drivers for harm-reduction messages that often have a greater impact than similar messages coming from the Government, police, drug services and medical staff. One recommendation in this sense would be for drug services to aim to increase the number of drug using peers and/or peer-mentors involved in the delivery of various prevention and harm-reduction interventions offered to their clients. Moreover, decisions regarding service provision should also be taken after input from these individuals is sought and taken into consideration, something that has already been recommended and promoted by the Welsh Government (2014) in its Substance Misuse Treatment Framework (SMTF).

Both drug users and drug professionals interviewed in this study reported that problem drug users were particularly receptive to seeing or witnessing the harms produced by mephedrone and synthetic cannabinoids on people whom they knew rather than being given generic messages to which they could not relate personally. In this sense, the findings of this study advocate for the development and use of local drug treatment initiatives (rather than national or regional) which incorporate truthful, real-life examples into their delivery. These findings

also suggest that the development of non-sensationalised, reality-based information regarding the negative effects of NPS on known individuals may be more effective for this population. An example of such a measure that could be implemented at a larger scale was provided by one of the drug experts I interviewed. In order to make sure problem drug users understood the harms produced by mephedrone injecting, Alison, the NHS nurse, always carried with her photos of local users who were affected by it. These included explicit pictures showing serious infections and amputations that were a result of intensive intravenous use of mephedrone.

The addictive potential for both mephedrone and synthetic cannabinoids was documented in this study and this was one of the main reasons why participants persisted in using these drugs. Therefore, the development of treatment programmes specifically tailored to address NPS addiction or the adaptation of existing models to incorporate NPS dependence, along with raising awareness of the fact that existing drug services can also cater for problematic use of NPS, would be a positive step towards encouraging problem drug users to seek and access such treatments. Moreover, more NPS-tailored training for drug workers would benefit not only the service users (who would receive a better service), but also the drug workers themselves, who throughout this study consistently reported feeling anxious and even panicked when the first problem drug users who had a mephedrone-use problem presented themselves for treatment/advice.

The role of ‘recovery capital’ was crucial in enabling those participants who stopped using NPS (both mephedrone and synthetic cannabinoids) maintain their drug-free status in the long-term. It is therefore desirable that the number of existing drug intervention programmes that deal with problem drug users and which aim to build and maintain recovery capital should increase. Moreover, existing programmes that do not yet take this into account should start focusing on it as soon as possible. A possible contribution in this regard would be to make use of recent models of recovery that emphasize the positive role of non-drug-using networks (i.e. ‘social recovery capital’), such as the social identity model of cessation maintenance (Frings and Albery, 2015) and the social identity model of recovery (Best et al., 2016). According to these models, the more recovery-supportive networks individuals have at their disposal, the more likely they are to maintain their desistance in the long term and become drug free.

Finally, many participants reported that they took the decision to stop using mephedrone because they realised that their identity had become spoiled due to the continued use of this drug. It is widely accepted in the literature (Biernacki, 1986; McIntosh and McKeganey, 2000; Best et al., 2016) that in order to successfully maintain the decision to stop, individuals who

reach this point require support in terms of either recovering their previous drug-free identity or building a new one. The significant role of a positive social identity in the journey towards recovery from substance misuse has recently been highlighted by authors such as Buckingham and Best (2018) and Frings and Albery (2018) and intervention programmes that employ strategies aimed at addressing this issue should be developed and put into practice more often.

Implications for drug policy and legislation

The complex nature of the decisions to start, continue and stop using NPS revealed by this study indicates that substance misuse policy needs to recognise the role of *drug*, *set* and *setting* in drug/NPS use and therefore encourage and support the development of holistic interventions that take all three into account. Moreover, practitioners involved in the delivery of any such interventions should be cognisant of the complex interplay between these factors, which may vary from one individual to another. A starting point in this sense would be, for instance, to make use of existing models that try to map out the factors that influence drug-using decisions, establish which ones are the most influential, and develop interventions tailored to address these specific factors on an individual basis. One such tool, which is currently widely used in the UK, is the Social Network Diagram (SND), developed by Day (2018), which identifies the elements in someone's social network that are likely to impede and/or facilitate recovery. This model though, only looks at the social *setting* of the drug user and overlooks the *drug* and *set* dimensions, which as seen in this research, are equally important in informing problem drug users' decisions regarding their drug use. This tool therefore could become more efficient if adapted to include in the equation all of Zinberg's (1984) elements.

The role played by the illegal status of mephedrone in problem drug users' decision to start using this drug revealed what Measham et al. (2010:19) called 'the perversity of prohibition'. As this study showed, drug users were attracted by mephedrone as soon as it became an illegal substance and consequently had access to it via street dealers. Careful consideration from legislators regarding the consequences of decisions to criminalise drugs, especially for the population of problem drug users who are likely to act differently from the general population to such initiatives, is therefore warranted. To further support this point, the conclusions of a recent report issued by the Home Office (2018) that assessed the impact of the Psychoactive Substances Act 2016 suggested that the blanket ban on NPS failed to achieve most of its aims. More specifically, the criminalisation of NPS did not reduce the use and the harms produced by these substances within the population of problem drug users (Transform Drug Policy Foundation, 2018). Similar to what I found with regard to mephedrone after its ban in 2010,

the report revealed that heavy-end drug users started to use more NPS, synthetic cannabinoids especially, because after these drugs became illegal they started to be sold by street dealers, and therefore became easily available to problem drug users.

Finally, a change in the current policies and practices of prescribing opiate substitution treatment could deter problem heroin users from trying new, unknown substances in the event of another shortage of heroin on local drug markets in South Wales. Specifically, policies that enable problem drug users to have easier and speedier access to treatment could divert this already vulnerable population from trying other potentially more harmful alternatives to opiates, as mephedrone proved to be.

Implications for criminal justice interventions and prevention

Non-detectability of synthetic cannabinoids played a major role in problem drug users' decision to initiate and also continue the use of these drugs. It is therefore likely that the development and implementation of routine drug tests that are able to detect synthetic cannabinoids at different stages in the criminal justice system could deter prospective users from initiating use, and/or existing users from continuing using them.

Implications for harm reduction

The unknown content of both mephedrone and synthetic cannabinoids was a real concern among participants, and, in some cases, this led to the development of a genuine sentiment of fear for these drugs. Raising awareness of drug-testing services such as WEDINOS, promoting their use, and/or making it more easily accessible to the population of problematic drug users could help inform them about the real content of the drugs they consume and thus offer them the option to avoid using potentially harmful substances. Moreover, a wider dissemination of data from such drug-testing services would help in painting a more accurate picture about the exact type of drugs used locally by problem drug users, which in turn could enable health and drug service professionals provide interventions tailored to those specific substances.

Implications for methodology and theory

I, like others before me, found Zinberg's (1984) theoretical framework to be an effective tool to disentangle complex drug-consumption decision-making processes, which suggests it could easily be used in other future studies of NPS as well. However, the use of this model was not always straightforward and while writing up this thesis I became aware of a few aspects that

could potentially improve Zinberg's (1984) classical framework in the context of the study of substance misuse.

One issue that became apparent when analysing the data was that the *setting* dimension was quite broad. It included the social setting of the drug user, also known as 'the set of others' (i.e. drug using peers, family, treatment peer group) (Jansen, 1997:117), but also drug market characteristics and aspects related to drug legislation and political environment. For clarity, I therefore suggest that Zinberg's (1984) *setting* dimension be broken down into a few further sub-categories, such as: social setting, physical setting, drug market setting, legal setting and political setting.

While trying to make sense of the processes behind drug users' decision to initiate, continue, or stop using NPS, it became clear that the *interactions* between the different dimensions of Zinberg's (1984) framework played an important role, and, in some instances, even a more important role than *individual* determinants (for a similar opinion please see Shewan et al., 2000). Therefore, this model could be adapted by explicitly adding a distinct dimension called *interactions* which could include various interactions between the different existing dimensions (e.g. *setting-set* interactions, *drug-set* interactions, or even *setting-drug-set* interactions).

Another important theoretical contribution of this research stems from the finding that stigmatisation of a drug from within the population of problem drug users influenced participants' decision to stop using what they perceived to be a dangerous substance and consequently they either stopped using drugs altogether, or, at least, moved back to using substances that they believed to be safer. From a harm-reduction perspective, this outcome is without question a positive one. This is a surprising finding, at least from the point of view of recent social identity models of recovery from substance misuse, such as the social identity model of cessation maintenance (SIMCM) (Frings and Albery, 2015) and the social identity model of recovery (SIMOR) (Best et al., 2016), which invariably regard the drug users' network of drug using peers as having primarily negative influences. This research, however, provided evidence that this is not always true and that at least in some circumstances, drug using peers can be drivers for positive changes in someone's substance misuse patterns. This conclusion therefore can be used to refine the above-mentioned models and provide a more accurate depiction about the role of drug-using peers in problem drug users' decisions to reduce harms associated with their use of drugs, or even in aiding their recovery process.

The microethnography conducted in this study proved to be an efficient tool not only for recruiting prospective participants (both drug users and drug experts), but also for the collection

of valuable data. Moreover, it provided me with first-hand experience of the phenomenon I was studying and strengthened my understanding and knowledge on this topic. Future attempts to study hidden populations such as problem drug users could benefit from employing a similar approach to recruit participants and/or as an effective data collection instrument.

Despite a few overlaps, this research confirmed that there are important differences between participants' motivations to initiate NPS use on one hand, and to continue using these drugs on the other hand. In this regard, the current study yielded results that are more refined than previous research focusing solely on NPS use in general. It is therefore desirable that future studies on NPS (or any other drugs, for that matter) should consider distinguishing between these different stages when addressing motivations for use. That being said, Shaw's (2002) multiple stage model of studying the use of individual drugs should be employed with caution because, as previous studies suggest, the three stages of initiation, continuation and cessation are not always discrete. Someone's drug-using career is in most of the cases not a linear process and individuals usually navigate through these three stages continuously.

This study also provided support for the examination of NPS individually rather than as a group of substances (also suggested by Soussan and Kjellgren, 2016 and Sutherland et al., 2017). The findings indicate that although there is common ground between mephedrone and synthetic cannabinoids, there are still important differences between these two drugs in terms of problem drug users' motivations to initiate, continue or terminate their use.

Limitations of the study

The questions this research was set up to address were around how and why problem drug users from South Wales initiate, continue, and stop using NPS. Due to the nature of these enquiries, a qualitative strategy was employed, which involved the use of a combination of research methods: in-depth interviews with drug users and drug experts and microethnography. One limitation of this design is the fact that findings of the current research cannot be generalised to the entire population of the UK, and not even to that of Wales as a whole. Breadth of results was sacrificed on this occasion for the depth of the accounts of these participants, which was necessary to answer the specific research questions this study sought to address. Secondly, data stemming from qualitative interviews present a number of challenges, which might affect the validity and reliability of the findings (Rubin and Rubin, 2006). For instance, sometimes interviewees use various techniques of neutralization (i.e. justifications, excuses), which makes it more complicated for the researcher to capture the truth and interpret participants' accounts (Brookman 2010, 2014). Moreover, the accuracy of data resulted from qualitative interviews

could be affected by memory problems, possible exaggerations, and the interviewees' reluctance to disclose information about own deviant activities (Bryman, 2006). Data from the repeated interviews and the microethnography revealed a remarkable consistency between factual information provided at the first interview, the follow-up interview and during the observations, thus giving me reason to believe that participants' accounts were generally accurate and reliable.

The design of the research was iterative, informed by the emerging data. Although initially I intended to conduct only interviews with drug users, in the end I opted to also interview drug professionals and to include in the analysis the data obtained from the microethnography at 'Catfield'. This development might give the impression that the design was done 'on the run'. However, the decision to include additional data sets was an expression of me responding to the practicalities of doing qualitative research within a hidden population. This is something that happens often in studies like this, where flexibility is desirable in terms of the research methods employed (see for instance Merkens, 2004). Moreover, having used a multitude of data-collection tools benefited me in that it enabled me to obtain a more rounded picture of the phenomenon I was studying.

The size of the sample of drug users was an appropriate one for a study of this qualitative nature. However, the analysis proved that some categories of problem drug users (e.g. persistent synthetic cannabinoids users and problem drug users who stopped using drugs altogether after stopping NPS use) were not sufficient to provide me with a clear understanding of these participants' decision-making processes. Moreover, because of the inclusion criteria, I did not include in my sample problem drug users with no history of NPS use. In hindsight, these individuals' accounts would have been beneficial because they would have allowed me to identify protective factors for the use of NPS and these findings could have informed potential NPS use prevention measures.

Directions for future research

The literature on the use of NPS among problem drug users in the community, at least in the UK, is still in its infancy. Along with filling a gap in the current knowledge about this topic, the findings of this study also revealed the need for more such research in this area. Below are a few suggestions in this direction.

Given that the data collection for this study was completed in February 2016, right before the Psychoactive Substances Act 2016 came into force, it would be interesting to revisit the drug

users and drug professionals interviewed here to investigate the effects of this piece of legislation on the patterns of NPS use among problem drug users in South Wales. Of particular interest would be to examine how the new ‘illegal’ status of synthetic cannabinoids and the consequent closure of specialised head shops (previously the main source of supply for these drugs among problem drug users), have affected the drug consumption decision-making processes of this cohort.

The findings of this qualitative study are not representative for the entire population of problem drug users in South Wales. Albeit in-depth, they merely depict the experiences and motivations of those who took part in this research. These findings could though form the basis for larger-scale, quantitative studies looking at NPS use among problematic drug users both in Wales and in the UK more generally. This could be done through the development of surveys that ask questions linked or based on these results.

The current data regarding the persistence in, and desistance from, the use of synthetic cannabinoids was limited due to the small number of participants who reported having used these drugs persistently. More research investigating this particular phenomenon among problem drug users is therefore needed to obtain a more rounded and generalizable picture, especially in the context of recent anecdotal reports about the increased use of synthetic cannabinoids by this population across the UK.

Concluding comment

This study of the use of mephedrone and synthetic cannabinoids among problematic drug users in South Wales revealed the complex nature of the decisions that individuals make with regard to their drug-use patterns. The results have important implications for policy and practice and may help to improve the lives or treatment experiences of NPS users. However, this phenomenon is in need of further monitoring among academics, who can then provide policy makers and practitioners with additional, research-informed recommendations regarding initiatives that should be developed, implemented and applied for this vulnerable group of people.

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APPENDICES

Appendix 1 – Schedule for initial interview with drug users

Interview schedule for drug users (initial interview)

Intro:

- Short description of the project and its aims
- Informed consent form
- Anonymity and Confidentiality
- Ask permission for the recording of the interview

Initial, “ice-breaking” discussion

- Tell me a few things about yourself (prompt for age, social status, family, work, treatment involvement)

General drug use

- Tell me about your drug use. How/when did you start taking drugs?
- Drug use trajectory – What drugs have you used over your life time?

Drug repertoires

- What drugs have you been using lately?
- How do you use them? (Simultaneously/subsequently)
- Why do you use more than one substance?
- How do you make the decision of which drugs to use?
- Where there any situations/circumstances that caused changes in the drugs you have used for a long period of time? (temporary/permanent changes). Explain how and why these changes occurred.

New Psychoactive Substances

- What do you think about NPS/ “legal highs”? (How do you perceive them and why?) – e.g. safer, cheaper, good value for money, not real drugs, drugs for kids, etc.
- How did you form this perception? What source of information did you use to build that perception? (friends, internet, media, key workers)
- Have you tried any? When and how?
- Have you been using any lately? (during the last week, last month, last three months) Why? If not, why not?
- Are you using NPS in conjunction with other drugs? Which are these other drugs? How and why are you combining these substances?
- Are you still using any of these new drugs? (prompt for Why? How? When?)
- Did you stop using any NPS? Why and How?

Final arrangements

- Thank for taking part
- Re-assure about the confidentiality of the information provided
- Ask for details for the follow-up
- Ask about any potential participants from his/her circle of friends/users.

Appendix 2 – Schedule for follow-up interview with drug users

Interview schedule for drug users (follow-up interview)

Intro:

- Thank you for agreeing to do this follow-up interview
- Informed consent form
- Anonymity and Confidentiality
- Ask permission for the recording of the interview

Changes since the last interview

Traditional drugs

- Did anything change since we last spoke in regards to your use of drugs (other than NPS)?
 - o Prompt for change in: drugs used, quantities, routes of administration
- What prompted these changes?
 - o For each change, prompt for motivations
- If nothing changed, why is it so?

New Psychoactive Substances

- Did anything change since we last spoke in regards to your use of NPS?
 - o Prompt for change in: drugs used, quantities, routes of administration
- What prompted these changes?
 - o For each change, prompt for motivations
- If nothing changed, why is it so?

Non-substance related changes

- Did anything change in your life since we last spoke?
 - o Prompt for changes in social life, criminal involvement, relationships, treatment status etc.

Clarify issues left unclear from the first interview

Final arrangements

- Thank for taking part
- Re-assure about the confidentiality of the information provided.

Appendix 3 – Informed consent form for drug experts



Statement of Informed Consent

University of South Wales PhD Research project:

Explaining the Influence of New Psychoactive Substances in changes in Repertoires of Problem Drug Users

I understand that taking part in this project will involve a PhD Criminology research student from the University of South Wales interviewing me about my opinions as an expert in the field of substance misuse.

I give/do not give (please circle as appropriate) you the permission to audio-record our discussion. I understand that the information that I provide in the form of audio recordings and their transcripts or written notes will be held securely and will be used solely for the purposes of criminological research and that the interview will take approximately half an hour of my time.

I understand that taking part in this research project is entirely voluntary and I can ask questions at any time and withdraw from the study at any time for any reason.

I understand that the information provided by me will be held totally anonymously, so that it is impossible to trace this information back to me individually or to the organization that I work for. I understand that, in accordance with the Data Protection Act 1998, this information may be held indefinitely.

I understand that the responses that I give are completely confidential. I also understand that confidentiality will not apply in the following circumstances:

- If I mention something that shows a significant and previously undetected risk to myself or others;
- If I mention identifying details that can link me or a client of my organisation, to a serious offence that has not previously been disclosed.

The consequence of either of the above is that confidentiality will not be upheld and the information may be passed on to the appropriate authority.

I understand that at the end of the study the researcher is willing to disseminate the main findings of this project to me and/or my organisation.

I understand that the PhD thesis and further publications emerged from this research will always only refer to interviewees by their self-assigned or author-assigned pseudonyms.

I, (NAME) consent to take part in the study on New Psychoactive Substances being conducted by Marian Buhociu, Centre for Criminology, University of South Wales.

Signed:

Date:

Appendix 4 – Schedule for interview with experts

Interview schedule for experts

Intro:

Thank you for agreeing to help me with my research.

Brief overview of the project, its main objectives and what has been done so far (how many interviews, geographical area covered etc.).

NPS use in heavy-end population

Establish the meaning of key terms: “NPS”, “heavy-end drug users”.

Underline that I’m only interested in the population of heavy-end drug users.

What NPS have been adopted by the heavy-end drug users involved with your organisation?

For each of the NPS identified:

- When did it happen?
- What do you think are the reasons why NPS have been adopted by this population?
- After being adopted, what happens between NPS and the primary drug of choice? (Substitution/Supplementation)
- What would make these users stop using the NPS?
- If there were any users that didn’t adopt any NPS at all, what were the reasons behind that decision?

Reaction to the NPS problems

What are the challenges your organisation faces with regard to the adoption of NPS by the population of heavy-end drug users?

What did you do/intend to do, to overcome these challenges?

What is your opinion on the Government’s proposed ‘blanket ban’ on NPS?

Closing

Thanks again for taking part.

Do you happen to know anyone else who would be willing to participate in my study as an expert?

Appendix 5 – Informed consent form for drug users



Statement of Informed Consent

University of South Wales PhD Research project:

Explaining the Influence of New Psychoactive Substances in changes in Repertoires of Problem Drug Users

I understand that taking part in this project will involve a PhD Criminology research student from the University of South Wales interviewing me about my experiences regarding my use of drugs. I understand that the criminologist interviewing me has no connections with the criminal justice system and that the information that I provide will be used solely for the purposes of criminological research. I understand that the interview will take approximately half an hour of my time.

I understand that taking part in this research is entirely voluntary and I can ask questions at any time and withdraw from the study at any time for any reason.

I understand that the information provided by me will be held totally anonymously, so that it is impossible to trace this information back to me individually. I understand that, in accordance with the Data Protection Act 1998, this information may be held indefinitely.

I understand that the responses that I give are completely confidential. I also understand that confidentiality will not apply in the following circumstances:

- If I mention something that shows a significant and previously undetected risk to myself or others;
- If I mention identifying details that can link me to a serious offence that has not previously been disclosed.

The consequence of either of the above is that confidentiality will not be upheld and the information may be passed on to either your key worker or the police.

I, (NAME) consent to take part in the study on New Psychoactive Substances being conducted by Marian Buhociu, Centre for Criminology, University of South Wales.

Signed:

Date:

Appendix 6 – Information sheet



INFORMATION SHEET

University of South Wales PhD Research project:

Explaining the Influence of New Psychoactive Substances in changes in Repertoires of Problem Drug Users

The Research Project

This piece of research is being conducted in order to document changes over time in patterns of drug use and how the availability of the so-called “legal highs” or new psychoactive substances influences these changes. This is a PhD research project which is trying to contribute to the overall understanding of the impact that these new substances has had on the drug use patterns of heavy end users.

The Interview

Participation in this research is voluntary and it involves an interview of approximately half an hour in a safe place convened with the participant. I would mostly be interested to find out how the availability of new psychoactive substances on the market influences changes in the drug use patterns of experienced drug users.

Recruitment of participants

If approved, the recruitment process will take place with the help of your organisation’s key workers. The nature of their work puts them in the best position to determine which one/s of the clients they deal with would be appropriate to take part in this research.

Data

All information provided will be treated in strictest confidence. No one other than myself and my supervisors (Professor Katy Holloway and Professor Fiona Brookman) will view the information and each interviewee will be given the opportunity to choose a pseudonym (false name) that will replace their actual name. In this way no one will be able to link the information provided back to the participant. The results of the research will be published in a summarized form.

Publications will be available to anyone who wishes to read it. It is hoped that the interviews can be audio recorded but should the interviewee object, then hand written notes will be

taken. Alternatively, the respondent may agree to the interview being recorded but choose for the recorder to be turned off at a particular point during the interview.

Ethical approval for the project has been granted by the University of South Wales's Ethics Committee.

Contact details: Marian Buhociu (mobile: 07765441273; office: 01443654292;

email: marian.buhociu@southwales.ac.uk)

Appendix 7 – Invitation card examples

Invitation

to participate in a research project

My name is Marian, a PhD student from the University of South Wales and I am conducting a study about the use of the so-called “legal-highs” in Wales.

Would you be willing to take part in my research and be interviewed by me? The interviews will be in the form of a free discussion and they should last around 30minutes

If you wish to participate, please write down your telephone number below: and place this card in the sealable envelope provided.

Thank you!!

Invitation

to participate in a research project

My name is Marian, a PhD student from the University of South Wales and I am conducting a study about the use of the so-called “legal-highs” in Wales.

Would you be willing to take part in my research and be interviewed by me? The interviews will be in the form of a free discussion and they should last around 30minutes

If you wish to participate, please write down your name or initials on this invitation and hand it to a member of staff.

Thank you!!