



The Links between Mephedrone Use, Violence and other Harms in South Wales

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¹ The research covered the southern part of Wales from Llanelli and Swansea in the South West to Newport in the South East and Brynmawr and Ebbw Vale in the Northern part of southern Wales. It covered two police force areas (South Wales Police and Gwent Police).

Executive Summary

Introduction

This research, funded by Welsh Government and South Wales Police, was commissioned in response to growing concerns by police, other criminal justice professionals and a range of practitioners who work with drug users, about the negative impacts of mephedrone use upon users, their families and communities. In particular, mounting evidence of a rise in the use of this drug in Wales and evidence of its serious health harms and links to violence led South Wales Police, in 2012, to establish a *Mephedrone Steering Group*. Despite rising concerns and anecdotal evidence, it became evident that there was no independent empirical evidence of the harms associated with mephedrone use in Wales or any detailed evidence of its specific links to violence.

Broadly, the research detailed in this report was undertaken in order to provide the first detailed assessment of the possible links between mephedrone use, violence and other harms in South Wales. The research combines data from a survey of 67 users across South Wales with in-depth semi-structured interviews with 12 mephedrone users and 20 'expert' practitioners who work with users in order to further unravel the various impacts of mephedrone and, specifically, its links to violence.

More specifically, the aims of the *qualitative in-depth interviews* with mephedrone users and expert practitioners were:

- To gather detailed user and practitioner insights into the contributory role of mephedrone in acquisitive and violent crime;
- To document and unravel the impacts of mephedrone on the general health and wellbeing of users;
- To make recommendations to Welsh Government about possible responses based on the research findings.

The aims of the *quantitative questionnaire survey* of 67 mephedrone users were:

- To gain a broader overview of patterns of use, impacts and cessation strategies from a range of users across South Wales.

Key findings

The key findings from the survey of mephedrone users indicate that almost three-quarters of the sample of 67 mephedrone users reported regular use of mephedrone

– that is - using the drug daily (46%), every other day (15%) or weekly (19%). Users generally snorted, injected or orally ingested the drug though young people aged 17 or younger did not report any instances of intravenous use. Mephedrone was generally purchased from street dealers or friends and there was little evidence of internet-based purchases amongst this sample. Over 80% of the sample combined mephedrone with other drugs, notably, alcohol, cannabis and heroin and over half of the sample also reported ingesting a range of drugs to try to alleviate the debilitating withdrawal impacts of mephedrone (most notably, diazepam, cannabis and heroin).

Just over forty percent of the sample reported acting violently whilst under the influence of mephedrone. This included half of the eighteen females who took part in the survey. Interestingly, the 'violent sub-set' reported combining amphetamine with mephedrone as often as alcohol (in contrast to the sample as a whole) and it is perhaps these combinations that are partly important in understanding why some users become violent when under the influence. Finally, the evidence presented here indicates that regular use of mephedrone (especially daily, but also weekly) is most associated with violence. These findings suggest that there may be two distinct types of user involved in violence: (i) the heavy end (daily) user and (ii) the regular weekend recreational user.

Key findings from in-depth interviews with mephedrone users revealed that they first decided to consume mephedrone in the context of a night out (or sometimes a night in) having fun with their peers where they were invited, or actively encouraged, to try it by a friend. Most users had a highly pleasurable experience prompting further use. The 'buzz' was described as more intense than other drugs inducing euphoria, chattiness and confidence. Mephedrone also helped some users to forget life's problems.

However, these pleasurable feelings were short lived and users had to deal with debilitating withdrawal impacts including stomach cramps, lock jaw, depression, paranoia, auditory and visual hallucinations and in some cases, psychosis, suicidal thoughts and suicide attempts. The desire to offset the effect of comedown and to return to the highly pleasurable effects of mephedrone invariably led to 'fiending' and increased frequency and volume of use. This in turn led to soaring costs and a host of further physical, emotional and social difficulties.

Over half of those interviewed had become involved in acquisitive crime (including shoplifting, burglary, vehicle theft and street robbery) and three-quarters of those interviewed had committed acts of violence connected in some way to their use of mephedrone. Four somewhat distinct violence-mephedrone links were discerned: (i) violence when 'high'; (ii) violence associated with comedown; (iii) economic compulsion and violence and (iv) violence associated with purchasing and dealing mephedrone. Importantly, regarding the first two categories, interviewees were

very clear in their own minds that mephedrone had a direct and significant influence on them becoming involved in acts of violence. This, they reasoned, must be the case as they were either not usually violent or, would not normally have been violent in relation to such trivial triggers.

Mephedrone also had a range of negative impacts upon the overall health and social well-being of users. Most users suffered significant physical and emotional side-effects and many were unable to pay bills or care for themselves or significant others properly. Many of those who became regular users lost jobs, had children removed from their care and lost contact with family and friends.

Users consistently reported finding it extremely difficult to give up mephedrone due to its highly addictive nature. Nevertheless, some had succeeded and all of those interviewed, as well as those who took part in the survey, had important insights regarding helping users to abstain permanently or never begin using including: (i) better education about the drug and its harms; (ii) support and counselling; and (iii) bringing ex-users together with users to provide 'real' experience-based advice. Users cited both the negative health impacts (physical and emotional) and negative family impacts as the main triggers to giving up mephedrone. A smaller number of users mentioned the financial implications of continued use as a barrier to continuation as well as increased tolerance levels or boredom with the drug. There were various ways in which users managed to give up mephedrone. Many spoke about avoiding 'drug' friends and some users went as far as to move from one area to another in order to break former ties with drug-taking friends and acquaintances. Some users talked about the importance of having the support of their family or a partner to help them to continue to abstain. Other users indicated that giving up mephedrone was not particularly difficult and that they simply applied will power to achieve this goal. These users tended to be at the light-use end of the scale of users and were likely less addicted to mephedrone. A small group of users felt that custodial sentences had assisted them in ceasing to consume mephedrone as their daily routines changed and they were separated from their drug-using peers. Two users replaced mephedrone with other drugs in order to specifically avoid the harms that they associated with mephedrone. Finally, a significant number of the sample had received support from drug agencies or other organisations that had aided the process of cessation.

Key findings from interviews with expert practitioners who work with users in many regards mirrored and confirmed the findings from the users. Once again the highly addictive nature of mephedrone was highlighted alongside its debilitating impacts upon the health and wellbeing of users. Many practitioners had been on the receiving-end of aggressive and violent behaviour by mephedrone-using clients, most of whom had not exhibited such tendencies in the past. Many had been verbally threatened and several had been physically assaulted. Practitioners also

reported a range of acquisitive crimes committed by their clients specifically linked to their abuse of mephedrone and the necessity to fund their increased use of this highly addictive drug. Finally, practitioners spoke (more often than users) about the links between mephedrone use and self-harm or suicide. One practitioner recalled meeting with clients every day who expressed suicidal thoughts. Overall, practitioners indicated that the behaviours that they had to manage were distinct and beyond the normal challenges that confronted them in working with clients addicted to other illicit (or licit) substances.

Conclusions

In conclusion, the research has indicated that mephedrone is a highly addictive substance and that many of those who use the drug experience intense cravings that lead to 'fiending', soaring costs, and a host of additional physical, emotional and social impacts. Users often combine other drugs with mephedrone but also ingest licit and illicit substances to try to reduce the impact of the debilitating withdrawal symptoms.

Many of the harms associated with mephedrone use are difficult to overcome and the impacts are cumulative. For example, loss of contact with family and friends, having children removed from ones care and the inability to retain employment mean that users' lives can rapidly decline and the uphill struggle to regain a 'normal' life is steep requiring significant support from a range of services. In addition, there is currently no information on the long term harms of short-term or prolonged use of mephedrone. In short, the most effective way to try to tackle the known harms associated with this drug is to try to prevent use in the first instance but, where this fails, to provide a quick and effective network of services to support abstinence.

Recommendations

- **Education:** whilst there is a growing drug education literature emerging across Wales, much of the advisory and preventative materials that consider mephedrone tend to deal with it as part of a more general approach to tackling new psychoactive substances. Mephedrone appears to have distinctly debilitating impacts and so it would seem important to deal with this drug in isolation when educating people about its effects and harms. Education could come in various forms but ought to emphasise the physical, emotional and social impacts as well as the potential (as yet unknown) long-term damage of using mephedrone. Materials would need to be tailored to various audiences including potential users but also parents, teachers, practitioners, youth workers, health workers, staff at late night venues and so

forth, all of whom may have knowledge of those using (or vulnerable to using) the drug. In addition, a diverse range of institutions could be targeted in different ways including schools, youth centres, colleges, universities, drug agencies, health centres and hospitals. Social media as well as face-to-face presentations could be combined with information packs and signposting to relevant agencies for advice and support.

- **Education**: Drawing upon the knowledge and experiences of ex-mephedrone users would be beneficial. Much like the Operation Trident anti gun and gang initiative in the Metropolitan Police Force that utilised ex-gang members to speak out about the harms, the 'real' voice of the ex-user will likely be more impactful than relying solely upon agency experts to deliver key preventative and harm reduction messages. Using carefully developed DVDs and education packs, ex-users could accompany practitioners on educational campaigns in schools, colleges and universities, for example. Given the growing focus amongst young people upon physical appearance, one aspect of this campaign could perhaps focus upon the negative impacts of the drug upon appearance including its distinctively off-putting odour.
- **Treatment**: Given the broad range of impacts that sustained use of mephedrone can have on the lives of users and their families, any 'treatment' would necessarily have to take this complexity into account. Networks of Support could be developed to ensure that users could access the relevant range of services to deal with the physical, emotional and social harms of mephedrone use.
- **Police Recording Measures**: better recording of all mephedrone-related 'incidents' and crimes, with a particular emphasis upon more carefully identifying the kinds of acquisitive and violent crimes that users commit at national and local levels.
- **Data Synthesis**: careful and regular synthesis of relevant data from police, probation, prison, health, social services, education and so forth in order to more accurately capture a national picture of the multiple physical, emotional and social harms associated with mephedrone use.
- **Further Research**: Given that the current research only accessed local users (i.e. people resident in South Wales), further qualitative research specifically focusing upon college and university students in Wales may be useful. It is possible that their experiences or patterns of usage may differ.
- **Future Research**: Future qualitative research could also try to untangle the multi-dimensional and complex associations between drug combinations and violence and further explore the four mephedrone-violence categories identified here. Also it is still somewhat unclear when, precisely, violence is most likely (i.e. during the up, just as the buzz wears off, during comedown, or all of these).

Part One: Research Context and Aims

In 2012 South Wales Police (SWP) established a *Mephedrone Steering Group* in response to anecdotal evidence of a rise in the use of this drug in Wales and evidence of its serious health harms as well as links to crimes of violence (including rape and robbery). Around the same time, the Welsh Government's *Advisory Panel on Substance Misuse* (APoSM) established a Psychoactive Substances Sub Group, which consisted of a range of stakeholders, to advise how to respond to the broader issue of the harms associated with new psychoactive substances (NPS). The Sub Group recommended a number of preventative and harm reduction approaches, many of which have come to fruition including: (i) working closely with partners to develop a range of education and prevention materials²; (ii) developing a 'warning system' so that any alerts received from across the UK are distributed to relevant clinical services via the Chief Medical Officer; (iii) the roll out and completion (across Wales) of a national training programme on new psychoactive substances for professionals who work with individuals who may be misusing NPS. Finally, the Welsh Emerging Drugs and Identification of Novel Substances, known as *WEDINOS* project, was launched in October 2013 in response to an increase in presentations at emergency departments reporting unexpected/ill effects by users of NPS, new combinations of 'established' substances, new combinations of licit and illicit drugs and new combinations of performance/image enhancing substances. *WEDINOS* aims to:

- Establish a network of robust data sources and data collection systems to assess prevalence, associated harms (physical, psychological and behavioural) and impact on services designed to address these harms.
- Collect and test New Psychoactive Substances (NPS) in order to further measure the potential harms of substances entering the market.
- Disseminate timely and accurate information to both general and targeted populations at specific risk, including information about the chemical makeup of specific NPS, the potential physical, psychological and behavioural harms that may result as a consequence of use, and pragmatic public health harm reduction and advice.

Clearly, Welsh Government, Police and partner agencies, have invested considerable energy and resources into trying to pre-empt and reduce the harms associated with NPS. However, knowledge of the impacts of mephedrone specifically, is currently

² For example, between February and March 2013, the Welsh Government in conjunction with the national drug and alcohol helpline (DAN 24/7) and Real Radio launched an education and prevention campaign surrounding NPS. The campaign, "*Know the Score*" consisted of a Ministerial launch, radio advertisements and announcements on Real Radio Wales, press advertisements, social media and billboard displays at the Six Nations Rugby tournament.

anecdotal in the main. Evidence to date (e.g. from drug service providers, health services, police data and intelligence) is that there are two broadly distinct groups using this relatively new drug: (i) long-term (bedrock) heroin users who are using mephedrone as a substitute for, or in combination with, heroin, (ii) young people (including school children) who are using the drug for recreational purposes. Moreover, anecdotal evidence from drug workers, police and other agencies suggest that mephedrone has particularly debilitating physical, emotional and social impacts, including a propensity for violence by users. In addition, there are reports of violence associated with the supply and distribution of this drug.

It is against this backdrop that the current project was commissioned by Welsh Government and South Wales Police. The research was undertaken in order to provide the first detailed (mainly qualitative) assessment of the possible links between mephedrone use and violence and other harms in South Wales. Violence is defined broadly to include violence to others (e.g. domestic violence, assault, robbery) and to oneself (e.g. self-harm and suicide). The research provides detailed user and practitioner insights and it is hoped that the findings will assist Welsh Government (WG) and South Wales Police in designing awareness campaigns and preventative programmes of work to try to reduce the harms associated with mephedrone use in the South Wales context.

Aims

The primary aim of this empirical study was to better understand the possible links between mephedrone use and violence in South Wales through the analysis of quantitative and qualitative data drawn from mephedrone users and expert practitioners who work with users. To these ends the following aims were identified:

- To gather some detailed insights into the contributory role of mephedrone in acquisitive and violent crime
- To document and unravel the impacts of mephedrone on the general health and wellbeing of users.
- To make recommendations to Welsh Government about possible responses based on the findings.

Research Questions

Using a combination of quantitative and qualitative methods (outlined below) the research aims to determine the following:

- Whether there is a link between mephedrone use and interpersonal violence
- Whether there is a link between mephedrone use and self-harm
- Whether there is a link between mephedrone distribution and violent crime
- Where mephedrone fits in terms of other drugs-crime connections (e.g. is mephedrone alone associated with violent crime or in combination with other drugs, including alcohol?)

- The nature and direction of any links identified
- The physical, emotional and social impacts of mephedrone upon users.

Part Two: A Review of Existing Literature

Introduction

This part of the report provides a review of key background literature in order to place the 'problem' of mephedrone use in Wales in context. The broader context is two-fold. Firstly it is necessary to consider the emergence of new psychoactive substances (NPS) and the identification of the problems associated with them in the British and Welsh context. This will then be followed by a more detailed consideration of mephedrone (one particular kind of NPS) in the UK and Welsh context.

The Emergence of New Psychoactive Substances (NPS)

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) (2011:1) define new psychoactive substances as:

"A new narcotic or psychotropic drug, in pure form or in preparation, that is not controlled by the 1961 United Nations Single Convention on Narcotic Drugs or the 1971 United Nations Convention on Psychotropic Substances, but which may pose a public health threat comparable to that posed by substances listed in these conventions."

New psychoactive substances are synthetic substances that mimic the effects of illicit drugs such as heroin, cocaine, and cannabis (UNODC, 2013). These substances can also be known under market names such as 'herbal highs', 'legal highs', 'designer drugs', and 'bath salts' and often fall outside of international drug control conventions (UNODC, 2013). Many new psychoactive substances were first synthesized in the 1970's, however it is only in recent years has their chemistry or synthesis changed to mimic the effects of illicit drugs. The earliest reported form of new psychoactive substance was ketamine in America at the start of the 1980's (EMCDDA, 2002). During the 1990s and to the start of the 2000's, new psychoactive substances from the chemical family of phenethylamines and piperazines were on the increase around the world (Bassindale, 2004). Since 2004, synthetic cannaboids such as Spice were introduced to the new psychoactive drugs market followed by synthetic cathinones such as mephedrone.

The extent of the global prevalence of new psychoactive substances is unknown (UNODC, 2013), however, the European Commission (2011) has started to gain information on mephedrone from a regional level. The European Commission (2011) interviewed 12,000 randomly sampled young people from EU member states and it

was found that 5% of the whole young person sample had used new psychoactive substances. In relation to the United Kingdom, it was found that 8% of the young people had used new psychoactive substances. The United Kingdom had a higher representation of new psychoactive substances compared to other EU states such as Italy (0.8%), Finland (1%) and Greece (1.6%).

Within the United Kingdom treatment data relating to the use of new psychoactive substances is relatively new, with ketamine and mephedrone only being included for the first time on the 2012 report for the National Treatment Agency for Substance Misuse (NTASM, 2012). The report found that treatment cases for ketamine had continuously risen since 2005 from 114 to 845 in 2012. The NTASM (2012) report also stated that in 2012, 900 over 18s had started mephedrone related treatment. High numbers of mephedrone based treatment indicate a potential future strain upon the public health service. The report stated that individuals who sought treatment for new psychoactive substances were relatively young, with 56% of all adults (those aged 18+) in treatment aged 18-24.

The Advisory Council on the Misuse of Drugs (ACMD, 2011) stated that the new psychoactive drug market has introduced society to a new type of drug dealer based upon entrepreneurship. Due to the difficulties surrounding the legality of new psychoactive substances, there has been an increase in dealers who do not have a background in dealing illicit drugs. Individuals without a history of using or dealing are being attracted towards new psychoactive substances under the premise it is legal. It has been reported that students have created websites to supply legal highs nationally and through local markets (ACMD, 2011).

Mephedrone Defined

Mephedrone (also commonly known as meph, m-cat, miaow miaow³) is currently the most popular drug that is derived from cathinone - a stimulant alkaloid that is found in the plant *catha edulis*. Its leaves are chewed in several African nations (Gibbons and Zloh, 2010). Mephedrone is available in several forms including powder, pills and capsules, and is also water soluble allowing users to inject the drug. The drug can also be snorted, swallowed and bombed (wrapped in paper and swallowed) however due to its instability it cannot be smoked (Nutt, 2012). Mephedrone has a uniquely unpleasant odour that has variously been described as resembling stale urine, vanilla and bleach, and electric circuit boards (Psychonaut Web Mapping Research Group, 2010). The chemical makeup of mephedrone is closely related to amphetamine and is difficult to detect on standard drugs tests. Users state the effects of mephedrone are similar to other drugs such as amphetamine, ecstasy, and

³ Other known names include: miaew, 4mmc, bubbles, sniff, drone, bath salts, white magic, plant food and plant feeder.

cocaine and induce feelings of euphoria and wellbeing as well as making the user alert, confident and talkative (Drugscope, 2013).

The Origins of Mephedrone

Mephedrone was apparently first synthesised in 1929 yet not used until the early 2000's. The initial purpose of the drug was to protect plants from the debilitating effects of green flies (Nutt, 2012). Mephedrone was used in horticulture for just a few years before 'third party' companies began to investigate its psychoactive effects. Research suggests that it was initially sold as mephedrone in Israel in the early 2000's as a party drug and then distributed and used in the western world (Nutt, 2012).

Legislation and Mephedrone

As the use of mephedrone apparently proliferated, legislation was developed in an effort to restrict and punish its use. It became classified, in the UK, as a class B illegal substance under the Drugs and Misuse Act in April 2010 (Winstock *et al.*, 2010). The classification of mephedrone was and is still controversial as it arguably lacked credible scientific underpinning and was instead a response to media and political pressures. Several governmental advisors who had sat on the Advisory Council on the Misuse of Drugs (ACMD) stood down from their roles in part because of the lack of evidence base in such decision making (BBC News, 2010, available at: <http://news.bbc.co.uk/1/hi/uk/8601315.stm>).

Some commentators have suggested that prior to the aforementioned legislation, the legal status of mephedrone resulted in users perceiving the drug as relatively harmless (Winstock *et al.*, 2011). The widespread accessibility and competitive price of mephedrone online arguably added to this perception (Daly, 2010; Deluca *et al.*, 2009; Hand & Rishiraj, 2009; Measham *et al.*, 2010; Newcombe, 2009; Psychonaught Web Mapping Research Group; Ramsey *et al.*, 2010; Van Hout & Brennan, 2011).

In contrast, McElrath and O'Neill (2010) have suggested that there is no direct effect between the legal or illegal status of the drug and users perception of safety. Nevertheless, there is some evidence that the purchase cost of mephedrone increased post legislation. For example, McElrath and O'Neill (2010) report that in Northern and Southern Ireland the price of mephedrone increased from £5 per gram when the drug was legal to around £15 per gram when mephedrone became illegal.

Supply of Mephedrone

Mephedrone can be bought via the internet or through street dealers. It was also widely available from 'head shops' on the high street prior to it being classified as an

illicit drug. Generally, the amount available to purchase online varies from 1g to 200g. The internet also allows mephedrone to be bought in bulk from Asian-based chemical laboratories. Europol (2010) found that in 2009 there were at least 31 websites that were selling mephedrone, with the majority based in the UK. More recent research carried out by Flemem (2012) identified that there had been a huge growth in on-line internet drug sales. 'Silk Road', an underground website (sometimes referred to as the 'Amazon.com' for illegal drugs) provided buyers with anonymity when browsing and making online drug purchases, provided users downloaded particular protective software. The site was shut down by the FBI in 2013 but now apparently operates again as 'Silk Road 2.0' (<http://news.yahoo.com/fbi-raids-alleged-online-drug-market-silk-road-153729457.html>).

McElrath and O'Neill (2010) found that very few people in their study purchased mephedrone from online suppliers and favoured street dealers. Mephedrone users also stated that they avoided head shops because of the stigma attached to the outlets. Furthermore, mephedrone users felt that transactions with dealers were socially safer and carried less risk of them obtaining the social status "drug user." Europol (2011) reported that the most common method of sourcing mephedrone in urban areas is from friends and dealers, even though it is easily accessible via the internet.

Prevalence

Mephedrone use was first recorded in the Crime Survey England and Wales in 2010-2011, after the drug had been made illegal. Thus there is only a small amount of national data available. Moreover, there are well known limitations with self-report survey data of this kind. Most notably, those involved in illegal activities may choose not to disclose, resulting in a dark-figure of unreported and unrecorded crime (Coleman and Moynihan, 1996).

Nevertheless, the data suggests that mephedrone use has decreased since the survey first began recording usage. Specifically, findings from the 2012 to 2013 Drug Misuse Crime Survey for England and Wales indicate that an estimated 1.1% of the adult population of England and Wales used mephedrone in 2011-12 compared to 0.5% in 2012-2013. The national picture also suggests that usage by young adults (aged 16-24) is declining with an estimated 3.3% of young adults using mephedrone in 2011-2012 compared to 1.6% in 2012-2013 (Home Office, 2013). Interestingly, the survey found that use of mephedrone in the 12 months prior to interview, was around 20 times higher (the largest difference across all types of drugs measured in the survey) among those who had visited a nightclub four or more times in the past month (4.4%) compared with those who had not visited a nightclub in the past month (0.2%) (Home Office, 2013:20).

In contrast, smaller scale localised surveys have tended to paint a picture of higher usage. For example Dargan *et al.*, (2010) conducted a study in Scotland with 1006 students from schools, colleges and universities in order to understand the use and associated adverse effects of mephedrone in school and college/university students before the UK legislation change. The study identified that just over one-fifth of the sample had used mephedrone. Of those that had used mephedrone, 23% stated they had done so once, whilst 4% stated they used mephedrone daily. The majority (49%) obtained their mephedrone through dealers and 11% sourced mephedrone through internet suppliers.

Meashem *et al.*, (2010) speculate that the availability of mephedrone is the primary factor for users choosing the drug. Thus, drug choice is based on the theory of displacement, suggesting that when other drugs become more available drug users will use the most easily accessible drug. However, McElrath and O'Neill., (2010) found that participants in their study enjoyed mephedrone that much, that even when high quality cocaine and ecstasy returned to Northern and Southern Ireland, their mephedrone use continued. Internet bought mephedrone is stated to have a very high rate of purity with over 99% (Corkery *et al.*, 2012). The demand for mephedrone by consumers has coincided with the poor quality of dissimilar party drugs such as heroin, MDMA and cocaine (Psychonaught Web Mapping Research Group, 2009).

In 2009, Europol reported 48 seizures of mephedrone in the UK, which included 14.8 kilograms of mephedrone powder, 8 tablets and 4.95 kilograms of mephedrone labelled as 'Glucose' being exported from China. In January 2010, Europol intercepted a parcel of mephedrone being imported from China to the UK containing 5.1 kilograms of mephedrone (Europol, 2010).

Cutting and Mixing Mephedrone

The Psychonaught Web Mapping Research Group (2010) stated that mephedrone is usually used with other compounds. The compounds are used either in the same session or 'cut' with the drug. These compounds include: alcohol, other research chemicals (Methylone, MDV, Butylone), cocaine, MDMA, Ketamine, GBL, heroin (cut together and injected known as 'speedballing'), cannabis, kratom and pharmaceutical depressants (such as Benzodiazepines) both unusually taken when coming down from the high), Pharmaceutical stimulants (e.g. Adderrall), Viagra, BZP, TFMPP, or DMAA, Nitrous Oxide, Isobutyl nitrate (poppers), Metamfepramone and Phthalimidopropiophenem.

Daly (2012) also reports that benzocaine and monosodium glutamate are also cut with mephedrone in order to make the snorting process less painful. Media reports in Wales have suggested that some users were cutting mephedrone with petrol

(Malone, 2013). The injection of mephedrone and petrol together is extremely harmful, with users reporting burns, wounds and cases of necrosis.

Side Effects of Mephedrone

Dargan et al (2010) reported that 56% of mephedrone users had experienced a negative side effect of the drug. Generally, the negative effects of the drug are mild and are short lived. Users have reported experiencing mild negative effects, such as jaw clenching, insomnia, nausea, paranoia and hallucinations. However a significant amount of mephedrone users end up in hospital and complain of irregular heartbeats, excessive sweating, tightening of the chest and headaches.

The injection of mephedrone is three times more likely to collapse veins than cocaine, whereas snorting mephedrone is twice as corrosive as cocaine on the membrane/septum (RIUW, 2012). The injection of mephedrone leads to rapid deterioration of injection sites which can lead to bruising and skin abscesses. Mephedrone can re-crystallise within the veins, and can cause serious damage and blockages. Mephedrone users are often unable to re-inject into the same injection site.

It is argued that the most harmful characteristic of mephedrone is its addictive properties, with 85% of users craving mephedrone after using the drug (Brunt et al., 2010). Europol (2010) state that the drug creates a high desire to redose, usually this coincides with the hangover/comedown period. Users are more likely to redose when they snort the drug because of how fast and hard the drug effects the user compared to when the drug is swallowed which has more prolonged but milder effects. Daly (2012) states that in extreme cases, users are injecting mephedrone 40 times a day. Tolerance to mephedrone develops quickly, thus the amount used increases dramatically to reach the desired effect. This is known as 'fiending'. There have been reports of users injecting 20 grams in 24 hours and purchasing £1000 of mephedrone per week. Users who had injected or snorted mephedrone were prone to being more aggressive and violent, compared to users who swallowed or bombed the drug (Daly, 2012).

Mephedrone, Aggression and Violence

Evidence on the links between mephedrone use and aggression and violence is generally scarce. This is not to suggest that there are no links, but rather, that there have been few credible studies to consider this issue. So, whilst there are numerous anecdotal accounts of mephedrone-induced aggression and violence (see Daly 2012; Chad, 2013) the empirical research base is sparse.

Van Hout and Bingham (2012) studied the patterns of use and perceived consequences of mephedrone based head shop products in Ireland. The study analysed 11 mephedrone users who all had a history of injecting and poly drug use. Mephedrone users stated that mephedrone heightened the sense of paranoia that in turn, led to elevated levels of violence and participation in criminal acts. Mephedrone users also reported acting violently when they were trying to secure further supplies of the drug for the next dose (Van Hout and Bingham, 2012).

Corkery *et al.*, (2012) reported violence towards mephedrone dealers. In one case a mephedrone dealer was stabbed to death and his supply of mephedrone was stolen.

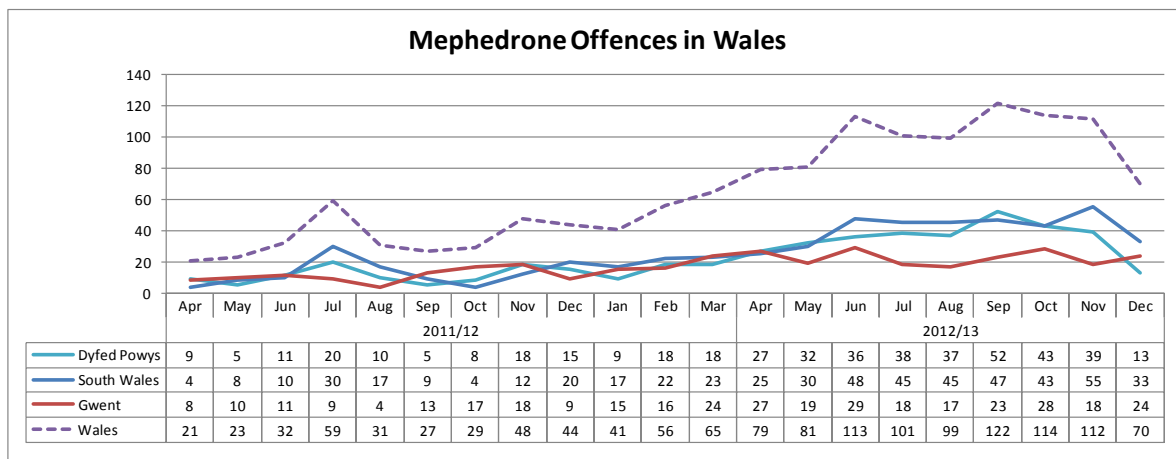
Lusthof et al (2011) reported an incident where a 36 year old man in the Netherlands injured himself in a rage of fury by smashing windows and then later died after using mephedrone. The toxicology report stated that the wounds inflicted led to substantial blood loss and the state of rage could have been triggered by the use of mephedrone. However, the toxicology report also found traces of other drugs including cocaine and MDMA. Nevertheless, mephedrone was deemed to be the main cause of the fatality.

Mephedrone in Wales: A National Picture

Drawing upon police data for Wales, there is evidence of a rise in the number of mephedrone offences between 2011 and 2012. Specifically, comparing the period April to December 2011 with the same period for 2012 the number of mephedrone offences apparently rose from 314 to 891 in the three Southern Wales Forces, an increase of 184% (see Figure 1 below). According to Wood (2013), the number of drugs offences involving mephedrone started increasing at the beginning of 2012 with a sharp increase in June and a peak in September. However, as Wood acknowledges, these peaks may reflect increased activity targeting mephedrone by the police as well as increased availability. During the last 3 months of 2012 mephedrone offences remained high, only falling slightly in December⁴.

⁴ Data for 2012-2013 were not available at the time of compiling this report.

Figure 1: Mephedrone Offences in Wales



(Reproduced from Wood, 2013).

Anecdotal evidence from drug and health agencies across South Wales also indicates significant increases in referrals to services (both within criminal justice and community agencies) since 2011 (with periodic peaks and dips throughout).

User Profile: Wales

Finally, some information exists, from Police, drug and health agencies, regarding the *mephedrone user profile*. This data indicates that the majority of mephedrone users are in the age range 18-24 and predominantly male (RIUW, 2012)⁵. Richards (2012) states that young people are most vulnerable to mephedrone use because they are more exposed to drugs in pubs and nightclubs. Furthermore, youths are a particular high-risk group in that they are more likely than other age groups to try an unknown drug. Finally, there is evidence that young people are specifically targeted by mephedrone dealers and in some parts of South Wales school children have been offered tasters for less than £1.00 (RIUW, 2012).

Evidence from a range of agencies across Wales suggests that mephedrone has made service users who were normally placid, more aggressive. Drug support services have noted that users who binge on mephedrone for several days often had suicidal tendencies, paranoia and an absence of memory (Homeless and Vulnerable Adults Service, 2013). Finally, mephedrone users are reported to be more engaged in risky behaviour such as unprotected sex, injecting into necks and groins and sharing injecting equipment compared to other service users (Homeless and Vulnerable Adults Service, 2013).

⁵ The gender data are based only on Welsh police figures for those *charged with* mephedrone-related offences and do not, therefore, represent the broader picture of male and female users.

Part Three: Methodology

This section details the methodology adopted to gather both quantitative and qualitative data on mephedrone use and its links to violence across South Wales. The research is predominantly qualitative in focus, the primary aim being to gather in-depth insights from users, and experienced experts who work with users, about any apparent links between mephedrone and violence and other harms.

The data sources utilised are summarised below and then explored in further detail. This section of the report ends with a consideration of the ethical issues that were dealt with as part of the research into this sensitive topic.

Data Sources: Overview

Quantitative:

(1) Questionnaire survey of 67 mephedrone users from across South Wales in order to explore patterns of use, impacts and cessation.

Qualitative:

(2) Semi-structured interviews with twelve mephedrone users to explore in depth the links to violence (to self and others) and other associated harms.

(3) Semi-structured interviews with twenty practitioner 'experts' who work closely with mephedrone users in order to gain further insights into the particular associations between mephedrone use and violence and other harms.

(4) Qualitative data elicited from the survey of 67 mephedrone users in South Wales.

Quantitative Data

Mephedrone User Survey

In order to capture a fairly wide range of views from users about their use of mephedrone and the harms associated with it two questionnaires were designed (one for young people aged below 18 and another for adults). The questionnaires (see Appendix A) differed only in terms of language use, covering identical issues and themes. Specifically, users were asked about onset, extent and patterns of use, methods of ingestion, the physical and emotional effects of mephedrone, how the drug was sourced, whether and how the use of mephedrone was associated with aggression and violence and a series of questions about cessation. The

questionnaire contained both closed and open questions and so allowed for the gathering of some important qualitative data to supplement the user interview data (discussed below).

The questionnaires were hand-delivered or e-mailed to fourteen different agencies across South Wales, including criminal justice organisations and charitable agencies that work with offenders, drug users or those with a broad range of needs. Agencies are not identified as some of the staff wished for both their own identities, and the identity of the agency, to remain anonymous.

Staff were asked if they could identify appropriate clients and ask them to complete the questionnaires (providing assistance where necessary). I was able to complete ten surveys with users after in-depth interviews or whilst users visited a needle exchange facility.

The data from these questionnaires were input into a statistical package (SPSS) and subject to quantitative analysis. Full results can be found in part four of the report that follows. The qualitative statements were extracted and analysed thematically. Findings from these data are included in part five of this report.

Qualitative Interview Data

Three forms of qualitative data are drawn upon in this report. Further details about each of these are considered below.

Mephedrone User Interviews

Semi-structured, in-depth interviews were conducted with twelve mephedrone users. Table 3.1 below provides an overview of the sample which includes a diverse mix of users in terms of age, gender, place of residence within South Wales and involvement in drug use generally and mephedrone use specifically. Further details of the sample can be found in table 5.1 in section five and a copy of the interview schedule can be found in Appendix B.

Table 3.1: An Overview of Mephedrone User Interview Sample

Pseudonym	Gender	Age	Regularity of Mephedrone use
Abby	Female	26	Every weekend
Charlie	Male	20	Every other day
Dave	Male	33	Daily
Steve	Male	34	Weekends
Mark	Male	26	Daily
Georgina	Female	31	Only twice
Morgan	Male	20	Daily
Smithy	Male	31	Daily
Clare	Female	23	Weekends
Ryan	Male	34	Weekends
Lou	Female	39	Weekends
Jack	Male	22	Daily

The men and women who took part in interviews were all in contact with one of the agencies detailed below in table 3.2. They were generally approached by a member of staff from the agency and asked if they would be interested in talking to a researcher, in confidence, about their experiences of using mephedrone.

Interviews lasted an average of 40 minutes, were all audio recorded (with the permission of the interviewees) and subsequently transcribed verbatim. The transcripts were entered into the qualitative software package NVivo 10 and subject to thematic analysis.

Practitioner 'Expert' Interviews

In-depth semi-structured interviews were also conducted with 20 practitioner 'experts' who work in a range of agencies that bring them into close contact with those whose lives have been impacted by drug use. Table 3.2 below provides an overview of the agencies where these experts worked⁶ and illustrates that a range of agencies were represented including criminal justice (i.e. prison and probation), mental health and various independent charitable organisations. Of the latter, some were specifically established to help drug users, whilst others had a broader remit, for example to offer support to the homeless. All of the experts had a wealth of experience of dealing with the harms associated with drug use and direct experience

⁶ Most of the experts interviewed were happy to be named but some were not and so, for the sake of consistency, none of the practitioner experts have been identified and the agencies to which they belonged have also been generalised.

of working with mephedrone users. A copy of the interview schedule can be found in Appendix C.

Aside from the detailed interviews, observation was also conducted at a needle exchange facility for one day and I attended a half-day training event for drug workers and other practitioners at the start of the research project.

Table 3.2: An Overview of the Agencies who Participated in Interviews.

Agency Type	Number of Interviews
Independent charitable organisations providing a range of services for drug users, their families and friends.	6
Charitable organisation for disadvantaged and homeless people.	3
Offender Management and Drugs Liaison.	1
Probation Service.	1
Prison Offender Intervention (drug) Service.	3
Criminal justice drug through and aftercare service.	2
Youth Offending Team.	2
Mental Health Day Service.	2
Total	20

Qualitative Survey Data

Finally, as indicated earlier, some qualitative data were gathered as part of the survey of 67 mephedrone users. These were simply extracted from the survey and subjected to thematic analysis. All respondents provided some level of qualitative comment.

Timescales

The data drawn upon in this report refers to a particular time period. Specifically, all in-depth interviews were conducted between May and September 2013 and all survey data were collected between May 2013 and February 2014. These time periods do not, necessarily, correspond to the periods during which the drug consumption or the associated harms occurred. For example, some of the 'users' had actually given up mephedrone at the time that we met for interview but reflected back (usually in months as opposed to years) to their former use. Others

had stopped and started numerous times and could discuss these various moments in their drug taking 'careers'.

Ethical Issues

There are several ethical issues involved in undertaking research on sensitive topics such as drug use and involvement in violence. In essence they include (i) ensuring that participants are fully informed about the project and their role within it (ii) avoiding harm to the participants (iii) ensuring that all data are stored securely and confidentially and (iv) that findings are disseminated in an anonymised format. Each of these are dealt with in more detail below.

It is important that subjects are given sufficient information about the project, the organisations involved in administering and funding the project, the aims of the research, and the use of the data to allow informed consent. In this respect, the research was informed by the British Society of Criminology and British Psychological Association Codes of Ethics. All participants approached to take part in the study were provided with detailed information about the purposes of the research, how the information that they provided would be stored and how the research would be disseminated. Most of the men and women who took part in interviews were initially approached by a member of staff who they already knew at the agency or institution where they were receiving assistance for drug-related problems. The information that they were provided with at this initial stage was repeated when we met for interview. The background to the research was explained as well as how it would be disseminated so that potential interviewees were fully informed before giving their consent to take part. It was also explained that they could stop the interview at any time and/or refuse to answer a particular question.

The purely voluntary nature of participation was carefully explained to all participants as well as the fact that that they could withdraw at any stage and should not feel obliged to answer all questions if they felt in any way uncomfortable or stressed at any time. I ensured that all participants only consented to take part having been fully informed of the aims of the research and how the information would be used. I explained who was funding the research and why and that I was an independent researcher who was not connected in any way with any of the agencies or the criminal justice system or the Welsh Government.

Assurances of anonymity and confidentiality were provided at the outset and explained carefully again when I met with each person. Specifically, all interviewees were assured that they would not be named in the report or any other publications that might arise from the research. Mephedrone users were asked to select a

pseudonym and these self-assigned names are used throughout the report. 'Expert' practitioners' identities are anonymised by only making reference to the kind of agency to which they were connected.

Avoiding harm to participants includes being cognisant of any emotional distress that might arise from taking part and taking appropriate remedial action. Interviews ran smoothly in most cases, with just one exception. During one of the interviews with a mephedrone user (that took place in a prison) the male interviewee began to perspire heavily and appear uncomfortable as he talked in detail about the affects of mephedrone. I handed him a glass of water and asked if he would like to have a break or stop the interview altogether. He explained that just thinking about it made him desperately want to consume it. This was not something that I had envisaged could happen. After a short break he indicated that he was happy to continue. However, he soon became uncomfortable again and so the interview was terminated. Nevertheless, important insights were already gleaned.

All data collected were stored in anonymised formats and held under secure conditions in accordance with the requirements of the Data Protection Act 1998. Quantitative findings from the user survey specifically excluded the recording of any user's names and, in any event, the data are aggregated and not attributable to particular individuals.

Interviews took place in designated safe areas such as rooms in drug centres or prisons.

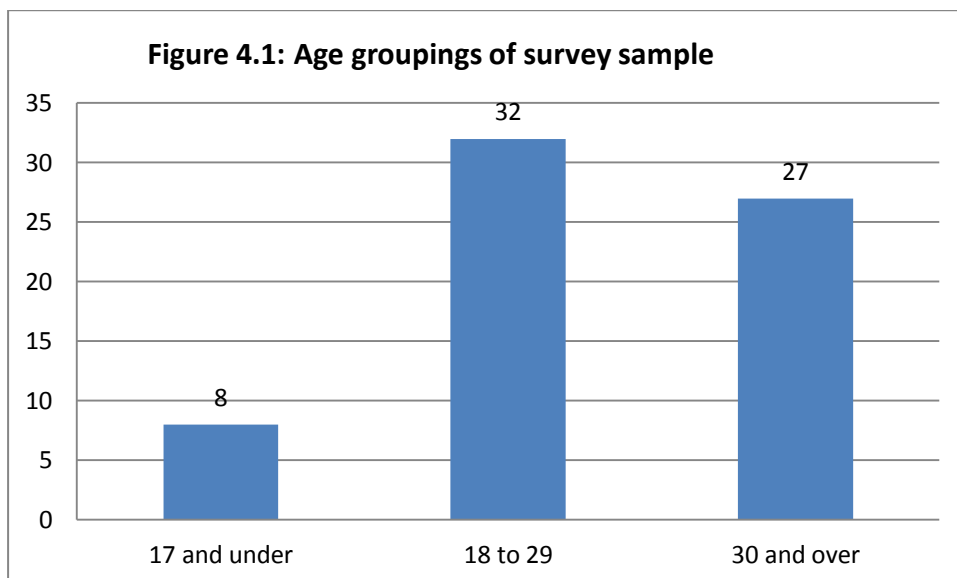
Part Four: Quantitative Survey Findings

Introduction

This part of the report presents and discusses the findings from the survey of 67 mephedrone users from across South Wales. As indicated in the methodology section earlier, the survey was designed in order to gain some broad yet detailed insights regarding the extent and patterns of mephedrone use, physical and emotional impacts, methods of ingestion, drug sourcing, whether and how the use of mephedrone was associated with aggression and violence and whether and how users had managed to abstain⁷. Here I begin by documenting aspects of mephedrone use in relation to the whole sample, before focusing in upon the 'violent subset' of users (i.e. those who reported acting violently whilst under the influence of mephedrone or during the withdrawal phase).

Overview of survey respondents

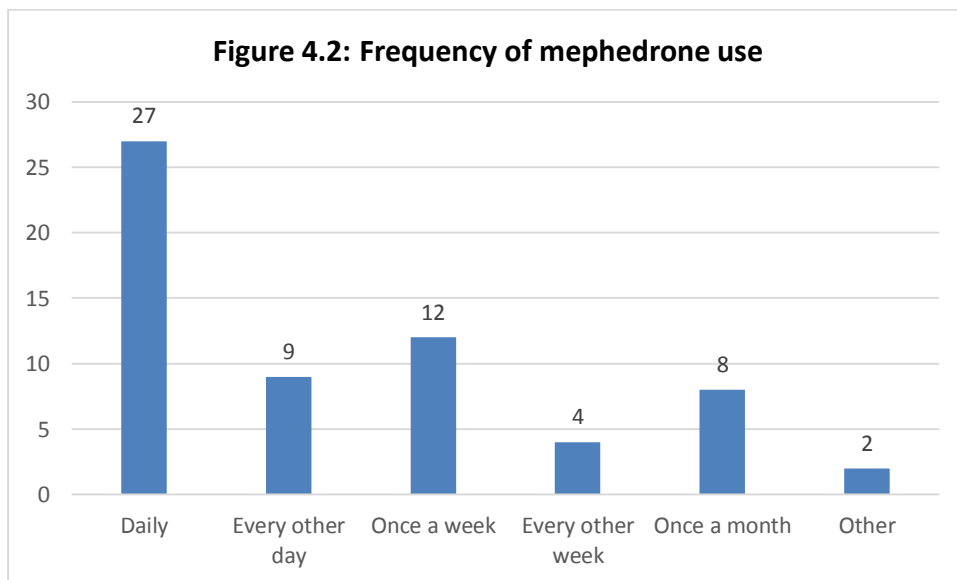
Almost three quarters (73%) of those who completed the survey were male, the remaining 27% being female. As illustrated in figure 4.1 below, almost half (48%) of the sample were aged between 18 and 29, a further forty per cent were aged over thirty years and twelve per cent were aged under 18. The youngest respondent was aged 15, the oldest, 55 years.



⁷ Percentages have been rounded up to the next number where the figure is .5 or above at the first decimal place.

Frequency of Use and Mode of Administration

As illustrated in figure 4.2 below, the approaching half of users in this sample (46%) used mephedrone on a daily basis (N=27). A further 19% of the sample used mephedrone once a week (N=12) closely followed by those who used the drug every other day (15%, N=9) or once a month (13%, N=8). Finally a small number of users consumed the drug every other week (6%, N=4).⁸

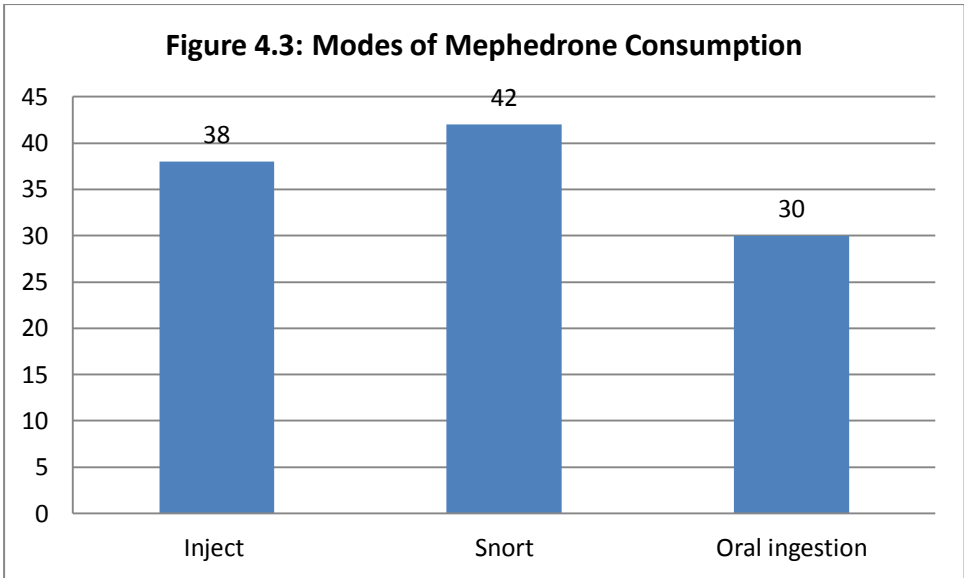


The most commonly reported means of consuming mephedrone was by snorting the product in powder form. Almost two thirds of the sample had snorted mephedrone (63%, N=42). This was closely followed by injecting (56%, N=38) and oral ingestion⁹ (45%, N=30)¹⁰. Two of the respondents provided answers that did not fit the parameters provided (coded 'other' above). Specifically, one user indicated that he had only used mephedrone once; another stated that she had only ever used it 8 or 9 times.

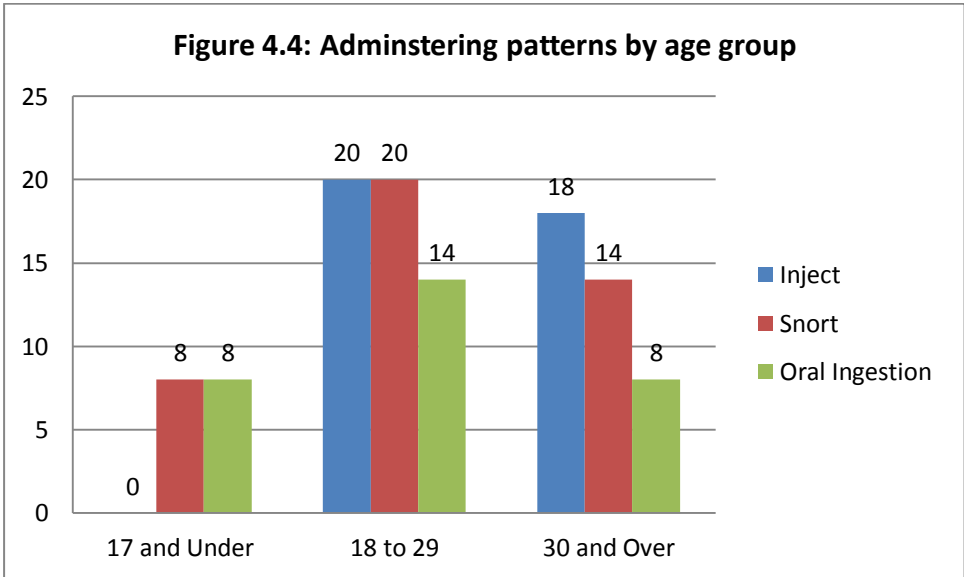
⁸ Five respondents failed to answer this question.

⁹ Oral ingestion refers to either swallowing or 'bombing'. The latter involves wrapping the drug in some kind of material (such as a cigarette paper).

¹⁰ Overall percentages do not add up to one hundred as many users adopted more than one mode of consumption.



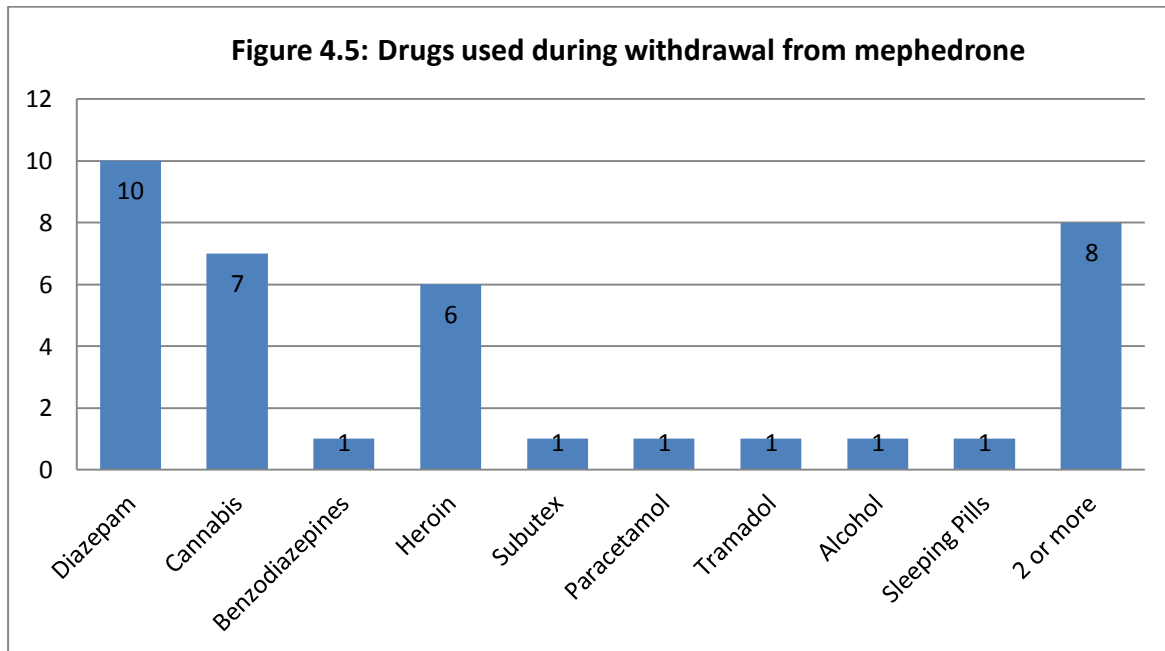
Further analysis by age group revealed that young people (those aged 17 and under) had never used mephedrone intravenously and were equally likely to snort, or orally ingest, the drug. In contrast, those aged 18-29 and 30 plus were most likely to report having injected or snorted mephedrone.



Mephedrone use combined with other drugs

Just over 80 per cent of the sample used mephedrone with some other drug. Mephedrone was most commonly used with drugs such as alcohol (N=29), cannabis (N=23) and heroin (N=19). Users also reported ingesting a range of drugs in order to ease the impacts of comedown. Just over half of the participants stated that they

had consumed a drug during the comedown (55%, N=37). Diazepam was the most represented drug with 27% (N=10) of the sample identifying this as their drug of choice to cushion the effects of withdrawal, followed by cannabis (19%, N=7) and heroin (16%, N=6). A small number of participants also reported using other drugs such as benzodiazepines, Subutex, Paracetamol, Tramadol, alcohol and sleeping pills.



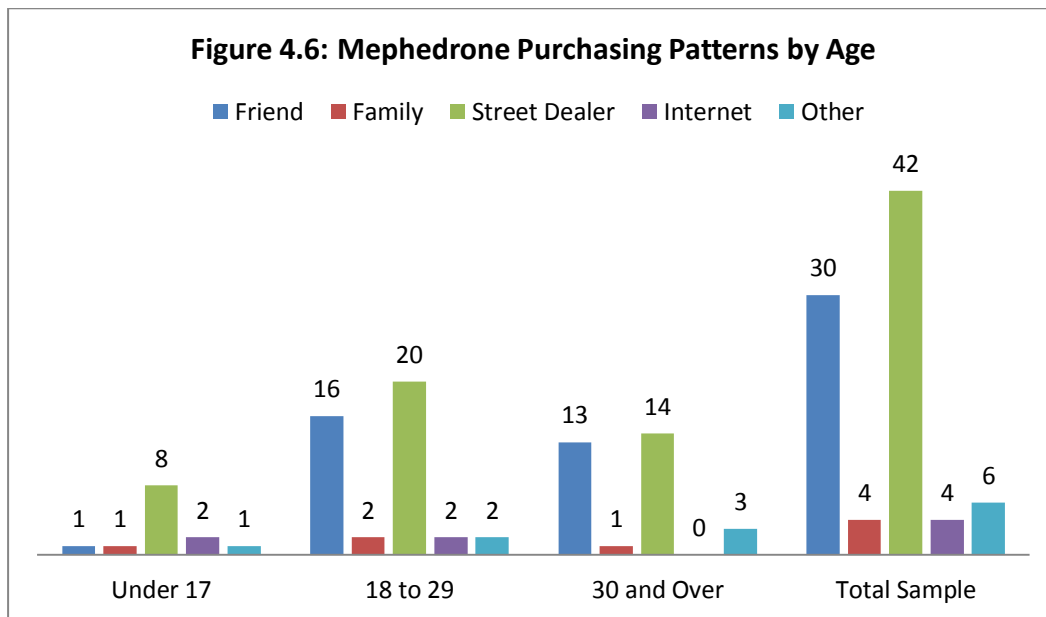
One fifth of those who consumed drugs to ease the effects of withdrawal reported using a combination of two or more drugs. Most frequently, cannabis was combined with a second drug, as illustrated in table 4.1 below.

Table 4.1: Combined Drug Use to Ease the Effects of Mephedrone Withdrawal.

Drugs Used	Number of Participants
Cannabis and Alcohol	2
Cannabis and Diazepam	2
Cannabis and Heroin	1
Valium and Methadone	1
Benzodiazepines and Heroin	1
Cannabis, Benzodiazepines and Heroin	1

Sourcing Mephedrone

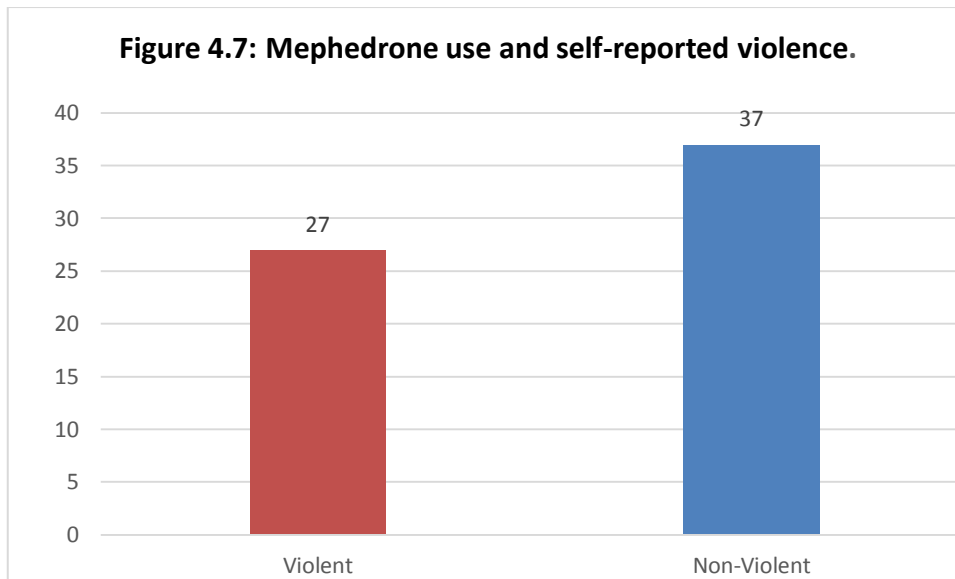
The majority of those sampled purchased mephedrone through street dealers (63%) followed by friends (45%). Just four participants indicated that they purchased mephedrone from internet-based sources. A handful of users purchased their mephedrone via other routes including social networking sites (such as Facebook) or did not purchase the drug at all but received 'a freebie' at a party or from their partner¹¹. Purchasing routes did not vary significantly by age group.



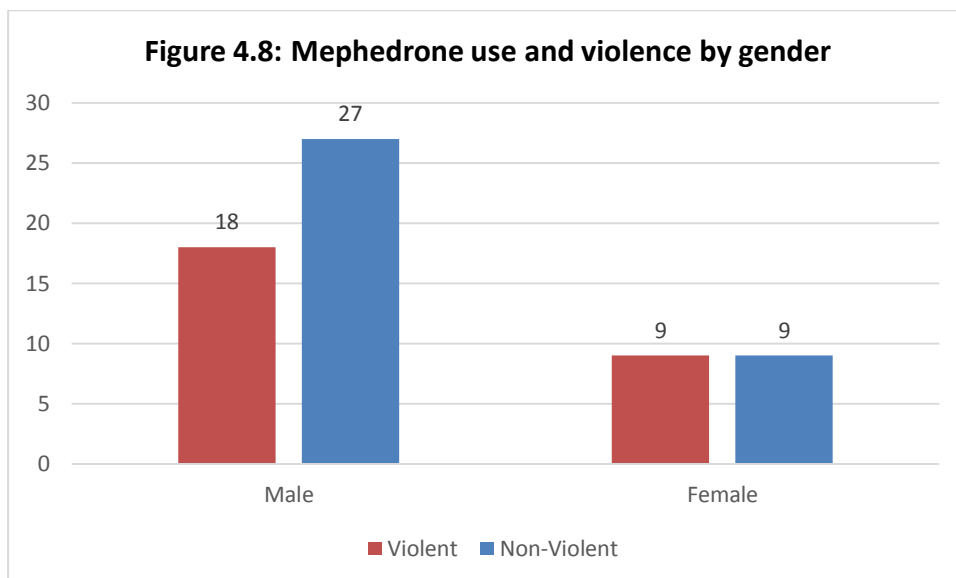
Mephedrone Use and Violence

A substantial proportion (42%, N=27) of those surveyed indicated that they had become violent when using mephedrone. The remainder of the sample, 58% (N=37) stated that they had not been violent when using mephedrone.

¹¹ A quarter of the sample purchased mephedrone from two or more sources, hence the total percentages exceed one hundred percent.



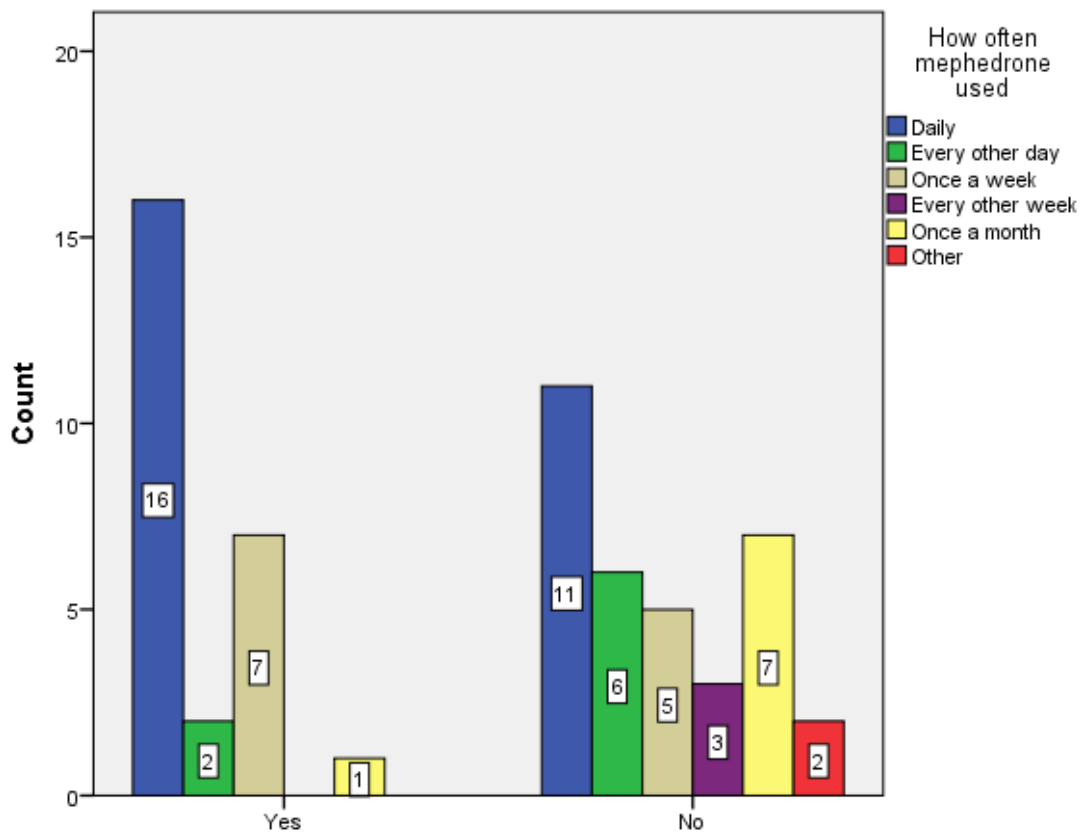
Focusing upon the violent sub-category it is evident that males were over-represented, which is not surprising and fits with general patterns of violent offending where males predominate (Brookman and Robinson, 2012). Specifically, over two-thirds of the violent sub-sample of mephedrone users were male (67%), the remaining 33% being female. Interestingly though, as illustrated in figure 4.8 below, half of the total female sample reported violence as a result of mephedrone use, compared to forty percent of the total male sample.



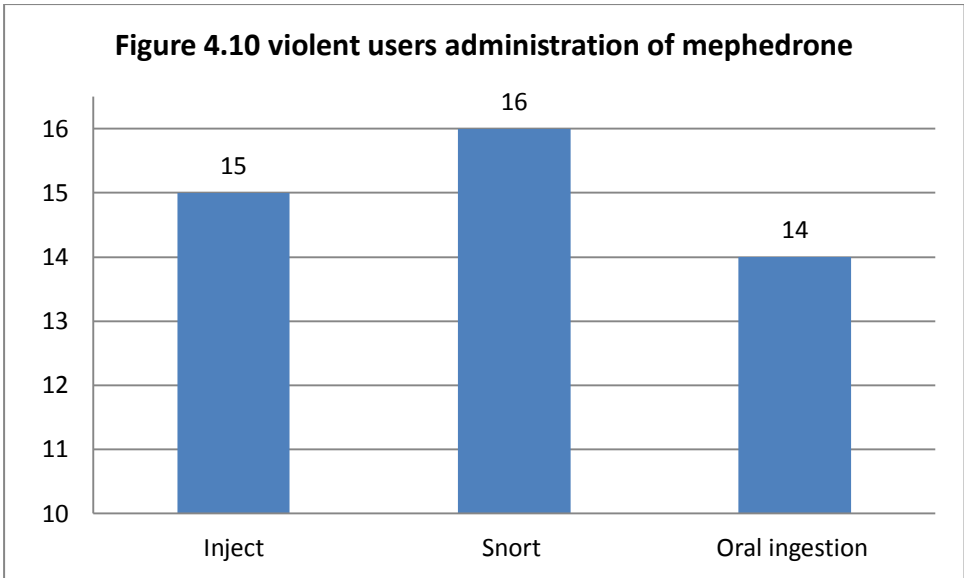
Violence was more likely to be reported when mephedrone was used on a daily basis. Specifically 27% of the violent sub-set (N=16) used mephedrone daily compared to 18% of the non-violent users. A significant amount of violence was also reported by those who consumed mephedrone once a week (12% of the violent sub-set, N=7). There were no self-reports of violence amongst those who used

mephedrone on a fortnightly basis and one user reported committing an act of violence who consumed the drug monthly. These findings suggest that there may be two distinct type of user involved in violence: (i) the heavy end user and (ii) the regular weekend recreational user. The links between violence and mephedrone use will be explored in much finer detail in the following chapter.

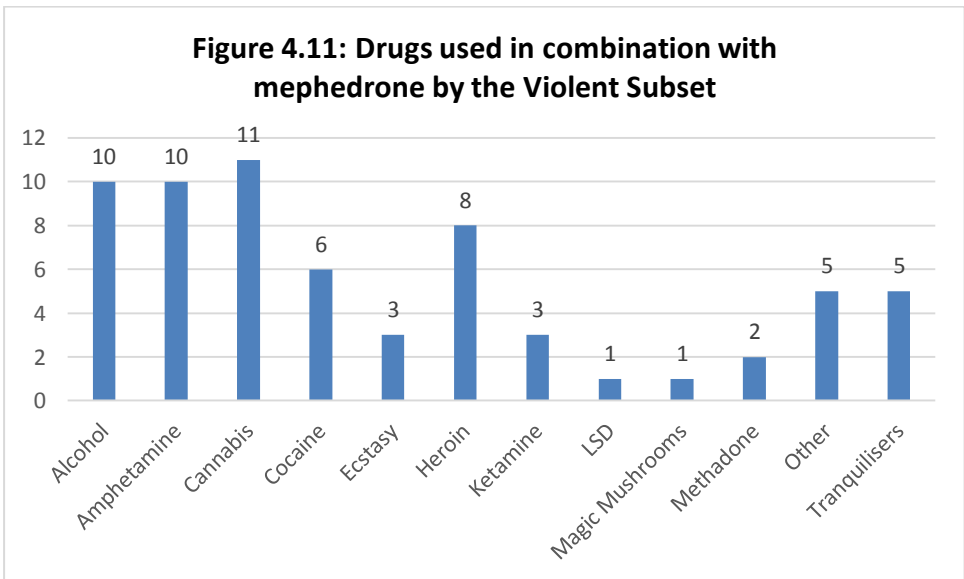
Figure 4.9: Frequency of mephedrone use by violent and non-violent users



Mode of administration did not appear to be associated with violence in that virtually equal numbers of violent users reported injecting, snorting or orally administering mephedrone, as illustrated in figure 4.10 below.



Finally, within the violent subset of participants, the most common drugs combined with mephedrone were cannabis (41%), alcohol (37%), amphetamine (37%) and heroin (30%).



Summary

In summary, almost three-quarters (72%) of this sample of 67 mephedrone users reported regular use of mephedrone – that is - using the drug daily (46%), every other day (15%) or weekly (19%). Users generally snorted, injected or orally ingested the drug though young people aged 17 or younger did not report any instances of intravenous use. Mephedrone was generally purchased from street dealers or friends and there was little evidence of internet-based purchases amongst

this sample. Over 80% of the sample combined mephedrone with other drugs, notably, alcohol, cannabis and heroin and over half of the sample also reported ingesting a range of drugs to try to alleviate the debilitating withdrawal impacts of mephedrone (most notably, diazepam, cannabis and heroin). Just over forty percent of the sample reported acting violently whilst under the influence of mephedrone. Interestingly, the violent sub-set reported combining amphetamine with mephedrone as often as alcohol and it is perhaps these combinations that are important in understanding why some users become violent when under the influence. Finally, the evidence presented here indicates that regular use of mephedrone (especially daily, but also weekly) is most associated with violence. These findings suggest that there may be two distinct type of user involved in violence: (i) the heavy end user and (ii) the regular weekend recreational user.

Part Five: Qualitative Research Findings (i)

The Voice of Mephedrone Users

Introduction

This section of the report documents, in the words of users themselves, their experiences of using mephedrone with particular emphasis upon any links between mephedrone use and violence and other harms. Details of the sample are set out in Table 5.1 below. The average age of the interviewees was 28. One third of the sample were female. Three quarters of those interviewed stated that using mephedrone had caused them to become involved in violent crime and Table 5.1 below provides a flavour of the violence enacted by these men and women as well as other details of the interviewees.

Table 5.1: Overview of Sample of Mephedrone Users who took part in Interviews.

Pseudonym	Gender	Age	Regularity of Mephedrone use	Stated links to Aggression	Stated links to Violence	Description of Violence	Stated harms to self
Abby	Female	26	Every weekend	No	No	-	No
Charlie	Male	20	Every other day	Yes	Yes	"I just went at him, battered him down."	No
Dave	Male	33	Daily	Yes	Yes	Violent assault on a dealer who had cut mephedrone with another substance (he was buying in bulk to sell on)	No
Steve	Male	34	Weekends	No	No	-	No
Mark	Male	26	Daily	Yes	Yes	I've burst through the door and I've started screaming and shouting about 'where's my f'ing money' and as soon as he's given me, "what are you on about?" I've grabbed him and threw him against the wall and lost the lot of it.	No but did accidentally overdose
Georgina	Female	31	Only twice	No	No	-	No
Morgan	Male	20	Daily	Yes	Yes	"I ran around (the town) with two knives in my hand." "threatened my friend with a metal bar"	No
Smithy	Male	31	Daily	Yes	Yes	"I've gone to do a deal and then someone's tried to sell it to me in singles and I've just attacked him for it." "Arson" "And he's mocked me a couple of times so I	No

						sunk my finger into his eye."	
Clare	Female	23	Weekends	Yes	Yes	"I have flipped out and smashed the house and stuff like that"	No
Ryan	Male	34	Weekends	Yes	Yes	"I tried cutting his head off...(with a) hedge shears" "I was going to cut his hands off with a meat cleaver" ... I have been violent to her on the off-chance, just flipping out and that. She's been violent to me as well (Domestic Violence).	No
Lou	Female	39	Weekends	Yes	Yes	"Me and my partner used to fight"	Yes
Jack	Male	22	Daily	Yes	Yes	Beat up step dad. "Burglary" "I just went chasing this boy, and I don't even know why I went chasing. I didn't even know this boy, but when I caught him I just slapped him and walked away".	Yes Attempted suicide.

Before considering the various harms associated with mephedrone that emerged during interview, it is important to gain a sense of why users initially consumed mephedrone and what their initial experiences were.

Deciding to try mephedrone

The majority of those interviewed first tried the drug as friends were taking it and they were offered or even encouraged to try it:

I didn't want to touch it at first and then a couple of the boys were doing it and he's like, "Oh try this, it's good like," because I've always been an heroin addict I have. He said, "try this, it's the way forward and that." So I tried it and I liked it (Ryan).

Clare had a similar introductory experience:

I don't know, it was just the people I was with and that's what it is, the people you're with start doing it. I didn't start off with Meow it was just a thing, but then it was a total different buzz when it first came out (Clare).

Some of those who took it were initially against the idea but, in the absence of their drug of choice, decided to try it:

I was dead against it when it first came out and then at one point I was at a house party and because they couldn't get any cocaine, only this stuff, I thought I'd try it. Because being wrecked and everything you don't really fully ... you're just like, "Yeah, whatever." (Abby)

Not everyone who tried it had a pleasurable experience that they wanted to repeat:

When I first took it was at a friend's house and I snorted it with a couple, two friends, and I didn't really think that much of it to be honest. It just burn my nose, it was crap (Georgina).

Nevertheless, even though it was not her type of drug, she did take it again with friends when handed some for free:

It makes you feel nice, don't get me wrong, but it's really fast, it works, your brain goes overtime like this, you just can't shut up, you can't stop fidgeting ... and we just didn't shut up talking for about ten hours, it just went on for hours, it was just... it just went on, and that's what doesn't appeal to me. It didn't appeal to me at all (Georgina).

Georgina was, however, the exception within this sample and all other users

reported a highly enjoyable experience that they wanted to quickly repeat.

Just makes you feel happy about everything, makes time fly. It is lovely stuff (Dave).

For many users then, their first experiences of using mephedrone were pleasurable and this led them to use the drug again. However, the reasons for sustained use were often far from those that prompted early use. For example, Clare's reasons for continuing to take mephedrone, that she described as "a dirty horrible drug" were to ease the psychological anguish of her life having spiralled out of control as a result of her addiction to mephedrone:

So no job, no family, I couldn't get out with my friends and my phone, so it was a lot. It takes it from you, you forget about everything, so not having your family, you forget about that. That's one thing. That's why I do it I think (Clare).

The highly addictive nature of mephedrone

It emerged quickly and consistently during interviews that mephedrone was like no other drug that members of this sample had consumed (prior to or since). The 'buzz' was intense and needed 'feeding' regularly in order to maintain the uniquely pleasurable 'high'.

In order to better understand why the drug was so addictive, users were asked to reflect upon exactly how it made them feel (physically and emotionally) at the time of consumption. Several common themes emerged, including feelings of happiness, increased confidence, an enhanced ability to talk to people and a means to forgetting life's problems, as the following quotations from a range of users illustrate:

You do have such a good time on it. You forget everything. Any of your problems and your worries. You're up so much. You love everyone. No enemies. It's just a good feeling (Charlie).

Oh physically it just brings you up, and you feel a bit more bouncy and everything, you feel your heart rate increasing, you sometimes find it harder to breathe, you are a bit (exhales) like that from it (Morgan).

I suppose it makes you feel nice, it makes you feel happy, it just makes you rush and it makes you like ... like if you're doing it whilst you're in the house it'll make you like want to clean and potter about, you can't keep still. I

would say it's a nice, happy drug. I wouldn't say it makes you aggressive, but some people have been aggressive (Abby).

Moreover, Abby explained that mephedrone made her (and her friends who also consumed it) more able to socialise easily:

It makes you chat all the time so you can like not know somebody and within like an hour or two you'll know everything about them, then you'll be friends. It's easy to make friends from it. I'll say I meet most of my friends from it (Abby)

The links between confidence and the high of mephedrone were expressed by many of the users:

Meow gave me more confidence, it made me feel more... Well it speeded up, it gave a stimulant effect, it speeded up everything. It's hard to explain, isn't it? Yes. I would become more chatty ... chatty, talkative. Confidence, it gave me confidence (Mark).

Other users consumed the drug to help to deal with significant emotional and social issues. For example, Mark (who was homeless and misusing heroin and alcohol) was at very low ebb in life and explained:

Emotionally it give me a boost, it made me feel better. I was in a very dark place really and really quite down, you know, always negative, a bit disheartened, didn't want to be living anymore, didn't want to go on anymore, and drinking alcohol daily. As I said I was out getting money for more drugs and alcohol, and it made me feel better, it changed my mood (Mark).

However, any 'good' feelings or positive benefits associated with mephedrone use were short lived in two different senses. Firstly, short lived in that the positive effects of the drug wore off quickly and secondly, in the longer term, as tolerance levels increased, usage increased and the lives of those now addicted to mephedrone began to spiral downwards:

Yeah, it just wiped everything. Somebody could knock on the door and say you're whole family have been wiped out, and but if you'd answered them and it would be like, okay. Nothing, you couldn't cry, you couldn't think of nothing else apart from the next line, nothing at all. I couldn't concentrate, I couldn't sit down to watch TV, I couldn't hold a conversation. I've forgotten how to socialise and I'm a socialising person (Lou).

Maintaining the 'Buzz'¹²

The excessive buzz or high associated with mephedrone use appears to be short lived. As a result, most users reported 'fiending' on the drug to try to maintain the peak. Furthermore, tolerance levels were reported to increase fairly quickly. Combined with the (relatively) cheap cost of mephedrone¹³ and its widespread availability, users quickly found themselves involved in a cycle of increased frequency and volume of use:

You keep topping up all the time and you start feeling... And like the first day is always the best buzz you're going to get and then the third day you're nowhere near, so you're taking a lot more (Clare).

Abbey reported a similar need to increase her intake:

..[L]ike M-Cat now, I've taken so much of it it'll take me a good couple of grams to even notice it I suppose (Abby).

Trying to reach the desired high again, often changed how users would administer mephedrone. Users sometimes resorted to riskier forms of drug administration such as injecting to get as close to their initial high as possible:

... because you get used to it and your buzz don't get its thing then, and then a lot of people have said they started injecting trying to find a better buzz (Clare).

Some users stated that they switched from heroin to mephedrone either to try to help with heroin withdrawal or because heroin was not available and they craved the process of injecting:

I was trying to come off the heroin and it was sort of helping, instead of doing heroin do that. I think I was craving the injection, I know it sounds bad but I was craving that habit (Steve).

The reason I took Meow was I was an intravenous drug user and it was something that I could inject, I could have a hit, so ... it was more about sticking a needle in my body and the hit, so it was about injecting something.

Most users stated that once they started using mephedrone it was very difficult to stop and many would binge on mephedrone for two to three days, usually over a weekend. Such intense periods of usage were costly, with users reporting spending up to a hundred pounds per evening:

¹² Interviewees tended to use the terms 'buzz' or 'high' to refer to the positive effects of mephedrone.

¹³ Users stated that Mephedrone cost between £10 to £20 for a gram or a 'wrap'.

I couldn't stop. When I started doing it I couldn't stop doing it. I'd do sixty, seventy quid a night (Ryan).

In some cases the urge to re-administer and to avoid the come down was so great that users took the drug constantly. For example, Lou became a virtual prisoner in her own bedroom, moving only to take another 'hit':

Lou: Constantly, constantly, and it got to a point I was in one room, just my bedroom.

Fiona: And you never went out of there?

Lou: No, no. This is how I would do it, my table over there, my wardrobe over there, and my tray under there. I'd get the tray for more drugs with my legs over from the bed, get some more down and go like that [swing her legs back around onto the bed] ... and then lie back down.

In sum, mephedrone was reported as being more addictive than other drugs that had been consumed amongst this sample and, even after long periods of abstinence, cravings still prevailed:

I want it, I smell it. It's like smelling bacon, isn't it? If you can smell bacon you feel hungry... The one that I fiend over, the one I want, the one I still want is M-Cat...Still want it now, I can smell it on people...It smells... there's a very distinct smell to it ... I don't like getting close to people who I can smell it on (Smithy).

In fact two of the users interviewed experienced physiological symptoms (of craving) during interview whilst discussing and reflecting upon the drug. Both began sweating profusely, one over his whole body, the other, just the palms of his hands:

The palms of my hands are literally wet just from talking about it (Smithy).

Coming 'Down'

The pleasurable sensations associated with mephedrone use were inevitably followed with the negative effects of come down that all users reported were extreme:

Everything else just goes out the window - your morals, your life, your family, everything. All you're worried about is not coming down then because that's what it is I think because like the clucking, that's the worst bit of it (Clare).

Some users consumed excessive amounts of mephedrone and would forego sleep for many days. For example, Charlie reported staying awake for six days during one binge session and having to deal with the extreme effects of the come down:

Six days and my head was really bad after... seeing people and talking to people, and realising there was no one there. Hallucinations. Bad as well. It's a horrible feeling. Really paranoid. Out the body experience, do you know what I mean? I was talking to people that weren't there. I'd look and realise there was no one there, do you know what I mean? (Charlie)

One consistently reported effect of coming down from mephedrone was an inability to sleep. Given that users had often already 'partied' for several days, the ability to sleep was important:

It's physically damaging, it just makes you anxious, it makes you snappy then the next day because you haven't slept and you're coming down. When you want to go to sleep obviously you've still got it in your system so you can't go to sleep so obviously that makes Yeah, it's not good. I would recommend people taking something like a sleeping tablet otherwise yeah, it's not so good (Abby).

Users stated that they consumed other drugs to ease the impacts of withdrawal from mephedrone such as valium, cannabis, and sleeping tablets. Without these other drugs, the come down period would be more intense and lengthy and they could have little or no sleep for up to five days.

Aside from the debilitating impacts of sleep deprivation, many users stated that they felt very depressed during the come down phase and some felt suicidal:

It gives you really bad depression, like you maybe have thoughts of suicide I suppose. Yeah I've had thoughts of it. I don't think I'd actually go through with it, but at the time you think of everything because it's making you depressed and then obviously you can't function properly, so you don't know how to cope with it because your brain's not functioning (Abby).

If you're on a low you could quite easily slit your wrists, no problem (Lou).

Jack attempted suicide as a result of his inability to deal with the powerful effects of withdrawal:

When you're coming down then it's like all the emotions just come hitting you straight in the head, like a council brick, and you think, 'woe,' you don't know whether to laugh, cry, scream, shout, kick, punch. It's just too much

for me to take in, and I don't even know why I was taking it...I've actually sat there cried, I've laughed, I've tried killing myself off it (Jack).

Aside from a complex range of emotional and psychological effects of the come down from mephedrone, users reported a catalogue of physical effects including feeling very cold and nauseous, experiencing stomach cramps and being unable to eat. I return to the broader impacts of mephedrone on the health and wellbeing of the participants (beyond comedown) towards the end of this part of the report.

In summary, the comedown period was described as the most debilitating aspect of mephedrone use. Users reported that violence, aggression, emotional instability, paranoia, acquisitive crime, self-harm, physiological and social problems were all associated with the comedown period. Several users reported that they would seek out ways to avoid the come down, by re-dosing regularly and with this, inevitably, came soaring costs and a host of additional difficulties. For some users, the price of their addiction led to acquisitive or violent crime, to which I now turn.

Mephedrone Use and Acquisitive Crime

Just over half of the users interviewed (seven of the twelve) indicated that they had become involved in acquisitive crime at some point when using mephedrone in order to fund their habit. As regular income (from work or social benefits) became insufficient to fund their increased habit crime seemed the only option for many users. In some cases the spiralling costs and use of mephedrone led to unemployment, placing the user in an even more difficult financial situation, as Charlie explains:

Charlie First of all I started at the weekends because I had a job, but it rapidly started being day to day.

Fiona What's rapid, a week?

Charlie Within three weekends. It started going from Friday to Sunday, then it'd go Friday to Sunday, go to sleep Sunday, wake up Monday, straight back on it for three days.

Fiona By that stage presumably you weren't working then?

Charlie No. Lost my job and everything.

Some users stole from family members, many failed to keep up with their household bills and some resorted to theft of gas or electricity, as Lou's account illustrates:

I stole all my mother's jewellery, eight thousand pounds worth, spent all my ESA money, my DLA, every penny I had. I didn't pay my bills, I wired my electric up (Lou).

Whilst many users began with relatively 'small' crimes such as stealing money from relatives and friends, in many cases this escalated to more serious offences including theft of vehicles, burglary and street robbery, as the following extracts from some of the interviewees indicate:

I'd never done burglaries and that in my life, and when you're on it it's just like you start doing different crimes that you've never... I have never thought about entering somebody else's house at night to rob them, but when I'm on that you just don't care. You're in, bang, grab what you want to get and think, 'Oh yes, you're in the money on that,' and it's wrong because you're going through other peoples stuff and that (Jack).

But, yeah, ... he's in jail now for doing a street robbery for M-Cat. He tried to steal someone's phone so he could go sell it them again. But, yeah, that was after he was on bail for the offence he did with my friend who's on tag now. My other friend's in jail too (Smithy)

Much of the property crime was opportunistic in nature though users had already decided that they had to somehow steal to fund their increasingly expensive habit:

It was the first thing I could think of. Saw an opportunity. I saw a vulnerable one (house) and so I thought I'd do it, which was a mistake. It's led to this [imprisonment] (Charlie).

Jack had already acquired 'skills' in vehicle theft and so resorted to stealing and weighing in cars to support his mephedrone habit:

I know it's not something I want to be proud of and say, but I learnt how to rob cars off him because I was watching him. And then if I was short of a couple of quid one night and I think, 'oh shit, I need some drugs.' I just go out and do it, wait until the morning because I'd have enough money on me until the morning to get drugs, and then go and weigh the car in, take the number plates off and that, weigh the car in, scrap it, get the money off the car and then go and get more drugs. And I done that a couple of times (Jack).

Aside from this range of acquisitive crimes, nine of the twelve interviewees indicated that they had become involved in acts of violence as a result of their abuse of mephedrone, to which I now turn.

Mephedrone and Violence

The links between mephedrone use and violence appear to be complex and multi-faceted. Four somewhat distinct links were discerned during this research. There are users who only report violence as part of the comedown phase (and who are otherwise 'happy and chatty' when 'high' on mephedrone) but equally there are also users who clearly report acts of violence during the 'up' or 'buzz' phase (many of whom have little or no recollection of these incidents but were arrested by police or told about their violence the next day). Then there are some users whose violence is linked less to the actual physical or emotional impacts of the drug and more to the economic compulsion to secure funds to continue to purchase mephedrone. Finally there is violence associated with the murky context of buying, selling and dealing mephedrone. Each of these sub-categories are considered in further detail below.

(i) Violence when 'High'

Despite the apparent pleasurable buzz associated with mephedrone use (discussed earlier) many users spoke about their involvement in acts of violence during the high. Some Mephedrone users became involved in what seemed to be random acts of violence against members of the public. Joshua, for example, reported that he chased a man through a town, and then hit him in the face. He had no recollection of this event, and was only informed of his actions by the police after his arrest:

I was going through [a town] going back last year before I was in jail. I was right off my teeth...and then I don't even know what happened. Something happened and I just went chasing this boy, and I don't even know why I went chasing. I didn't even know this boy, but when I caught him I just slapped him and walked away. And two police officers come up to me and said, "why did you hit him?" I said, "I didn't hit nobody," he said, "Look, we've just seen you hit somebody (Joshua).

Joshua had also assaulted a man who was talking to his girlfriend whilst under the influence of mephedrone and was clear that this behaviour was out of the ordinary for him as he was not usually a violent person:

Just a boy talking to my girlfriend... I just went at him, battered him down ... punched him in the face, hit his head on the kerb. I was going to get done for GBH but he dropped the charges and the police took on the assault charge...Fractured his eye socket...hitting his head off the kerb (Joshua).

Several users reported becoming easily and instantly enraged in response to the most trivial of triggers:

If somebody starts on you it's just like rage. You go on a road rage. It's just like that if somebody starts on you, or just walks past you and looks at you a funny way, you just want to turn round and just batter them and you just won't care about it (Jack).

Some users recounted extreme acts of attempted violence in response to trivial triggers, as the following account from Ryan illustrates:

I tried cutting his head off...(with) hedge shears. I tried cutting his head off with that. My mate dragged me off him (Ryan)

Ryan had become enraged because an acquaintance had consumed his alcoholic drink.

Users within this sample frequently used the term 'paranoia' to explain their involvement in acts of violence. They essentially reported that the drug induced paranoia and that they would believe that people around them (friends, acquaintances or strangers) were talking about them, planning to harm them or This sometimes led to confrontations that could end in violence. For example, Morgan threatened a group of 12-14 people with a large metal bar, because he believed that everyone in the room was trying to kill him:

I just went paranoid, and I was just sat in the room, I just picked up the metal bar because I thought everybody was trying to kill me, and trying to beat me up and all that stuff... I just said f**k off, I am going to hit you with this f**king metal bar (Morgan).

Moreover, Morgan was certain that this (and other intense episodes of violence) were exclusively linked to the negative effects of mephedrone:

Definitely isolate the whole of it down to Meow, that incident, one hundred percent (Morgan).

Charlie, who had also experienced what he referred to as paranoid-induced violence, explained that once the paranoia had taken hold it became very difficult to 'shake off':

It's just once you've got something in your mind. It's the same with the paranoia thing, once you've got something in your mind, it sticks. You can't let it go out of your mind. You just go over and over and over and over it. It takes a lot for me to lose my cool. When I lose it, it's hard for to come back. I got arrested and charged for that...assault (Charlie).

Like Morgan, Charlie emphasises a direct link between mephedrone and violence:

Fiona: So is it your view that those two occasions, once in your cousin's garden and then the once when you were with your girlfriend, do you think that those acts of violence might have happened if you hadn't been on that drug?

Charlie: No.

Fiona: So you definitely make a link between the actual...

Charlie: Meow, yes.

Fiona: Okay and of all the actual substances you've ever taken, it's never made you...

Charlie: No, because even if I was aggressive, I can usually pull myself away, but not, I was like a madman, do you know what I mean?

Some interviewees also noted that sleep deprivation, alongside the drug's paranoia-inducing qualities, led to acts of violence, as Morgan's account illustrates:

Bomb normally, I did sniff it as well, but bombing was the main one for me. That's what messed my head up really on it, made me really paranoid. After two or three days as well and sleep deprivation in with it, you start hearing things, start seeing things. I thought people were trying to kill me on it, so I ended running around [town] with two long bleeding knives and ended up being arrested for it. It is a seriously bad drug (Morgan).

Violence was not restricted to strangers, friends and acquaintances. Users also reported committing acts of violence against their partners and family members and recounted instances of other users who had also become involved in domestic violence¹⁴:

My mum and my sister...Yeah but they were petrified of me because I just... it's not just having a fight... it wasn't really a fight, I just flipped out and then they were petrified of me when I'm storming round kicking things. It's ridiculous man... Yeah, I kicked my mum and I would never ever want to do that again (Clare).

His father knew he was on drugs and he didn't like it, and he snapped, got a knife, stabbed his father, realised what he did. His mother was in the bathroom,

¹⁴ Domestic violence is defined here in its broadest relational sense to include the abuse of any family members, not simply partners.

so she wanted to come out and she tried to help him. He got a knife and stabbed her and then stabbed himself and he came out of the house then with this knife and all blood (Abby).

In some cases, relationships were extremely volatile with both male and female partners assaulting one another regularly:

Yeah, me and my partner used to fight all the time. Oh I could stab him (when you were on the drug?) Yeah ... without a doubt (Lou).

And another friend of mine...She was on it for months and months and months and she went really aggressive and her and her boyfriend ended up splitting up because they were fighting all the time, and obviously that had [mephedrone] to do with it (Marie).

A small amount of violence was reported during the drug administration stage. One user recounted his direct knowledge of a man who was thrown out of a window because he was unable to find a vein in his acquaintance's arm to inject mephedrone. His acquaintance became enraged:

Another one of my mates, I won't use his name, but ... there was a man fell out of a window into town and that was all over... the guy was trying to jab him but can't get a decent vein and then because he can't get a decent vein it's going off in the needle and he jumped up and put him through the window essentially like, put him in intensive care (Smithy).

It was sometimes difficult to discern whether aggression and violence were exclusively associated with the high (and if so what stage of the high) or as the drug was in fact beginning to wear off. Perhaps the closest any of the interviewees came to explaining this is captured in the quote from Joshua below:

It's not when you're at the high-high, it's not when you're low, it's when you're just alert. It's like when you go right up and you just want to dance and all that, but then as it's starting to wear off, you're like, is he talking about me? You see people, are they phoning or is he texting someone about me? That's when your mind starts working overtime. Like I said, once something's in your head, it's not going to change. Even if you know it's not, you'll still think and think and think.

If Joshua's experience is common, then it appears that there is a particular 'window' when some users are most likely to become violent when under the influence of the mephedrone, specifically, just as the peak or buzz begins to subside. Nevertheless, the research also found clear examples of violence associated with the more sustained comedown stage, to which I now turn.

(ii) *Violence associated with 'comedown'*

Several users stated that when they were high, they were placid and calm, however, on reaching the comedown period they became aggressive and violent. Clare was one of a number of interviewees who discussed violence related to physiological and emotional impacts of withdrawal:

It's more about the coming down bit you do then, Like I say I've come down so then I...that's when I get aggressive...I'm really snappy with everyone, really nasty. I have flipped out and smashed the house and stuff like that then, but not when I'm on it (Clare).

Other users linked comedown-related violence more specifically to their urgent desire to gain more mephedrone. For example, one user reported that, during the comedown period, he envisaged killing someone just to gain cash to get high again.

When you're coming down you're in so much of a mood you just feel like going out and killing somebody, and not thinking twice about it and then just getting the money off them, and just go out and get right off your nut again (Jack).

(iii) *Economic Compulsion and Violence*

It has been well established in the criminological literature that there is an association between the need to fund a drug habit and violent crime (see for example, Goldstein, 1985; Wright et al., 2006) and use of mephedrone appears to be no exception.

Many users started by stealing money or goods from family or friends but their crimes then escalated, as Jack and Charlie explain:

It started off like petty things, like taking fivers out of my mum's purse and that just to get like a gram or something, and then I was actually addicted. Well I found myself addicted to it, and then I started into like doing robbing telly boxes, the meter boxes, and then I started going into burglaries and then it just escalated like robbing cars, selling cars for money. And you try and do anything to get money (Jack).

Jack committed two burglaries in quick succession on one occasion:

I was taking fifteen grams a day, and at the end of it then I'd just be sat there like three or four days down the line thinking, 'Right, what can I do?' And then I'd go out and do another burglary and think, 'Oh yes, got money, blah, blah, blah,' and then it was just a constant circle. And it had a big

impact on my mum because the police were going there telling her I'd been locked up for this, been locked up for that (Jack).

Charlie had also become involved in burglary to fund his habit:

Fiona: Was there a link between the burglary and taking Meow?

Charlie: Yes...No money and on Meow at the moment, do you know what I mean? Run out. Didn't want that buzz to go. (Charlie)

Purchasing, Dealing and Dealer-Related Violence

Drug dealing has been long associated with violence (Goldstein, 1995) and the dealing of mephedrone is no exception. Three somewhat distinct kinds of violence were identified amongst this sample in relation to the buying and selling of mephedrone: (a) debt-related violence; (b) Bad Deals and Violence amongst Dealers and (c) Reputation-enhancing violence. Each of these themes are explored in further detail below.

(a) Debt-related violence

Firstly, it was often reported that users would become in debt to drug dealers who would, at some point, use violence to retrieve the outstanding payments. In part this was due to the technique of allowing users to have drugs on a "pay later" understanding, as Morgan explains:

I would have most of it on lay, strap, on tick or whatever you call it; it was a have now pay later sort of thing ... and that was 10 pound a gram, but they will lay it, but they will lay it at 15 pound (Morgan)

Morgan had been in debt on several occasions and was aware that the process of paying later (or not as the case may be) was widespread:

Well I have seen people who have had their houses smashed up, windows smashed in because they owe people money. I have seen people beaten up over it. Because you can have now, pay later. And it's a lot easier to get yourself in debt with, and because you think I will get money here and there, and then you don't, and then you will end up laying off two or three different people as well, because it's that easy to get. If you lay £20-30 from one person and they won't lay you anymore, you ring someone else up (Morgan).

Some respondents suggested that dealers paid others to carry out retaliatory attacks against those who owed them money, perhaps distancing themselves from the act in order to avoid criminal justice sanctions:

And I've seen people having knee caps busted and shit like that because they owe the dealers, but it isn't the dealer that will go for them. The dealer will go and get other boys to go and do the dirty work, and then the dealer will just give them a couple of quid for doing it (Jack).

(b) Bad Deals and Violence amongst Dealers

In other cases violence was related to 'bad' or dishonest drug deals between dealers. For example, Dave, who was purchasing large quantities of the drug to sell on, committed a vicious assault against a dealer who tried "ripping him off". Only two of the three large boxes actually contained mephedrone, which Dave discovered when he arrived home with the drugs. His violent assault of the dealer led to further violence in the form of retaliatory attacks. The escalation in violence was excessive and Dave was only prepared to discuss the detail with the recording device turned off.

Similarly, Smithy attacked a dealer for 'inappropriate' dealing:

I've been violent because I've gone to do a deal and then someone's tried to sell it to me in singles and I've just attacked him for it. I didn't even bother taking the gear after I'd attacked him, I just attacked him and then went off and scored it off someone else because I thought he was taking the piss. I didn't respond in a normal way I suppose (Smithy).

Smithy was one of two respondents interviewed who had become heavily involved in dealer-to-dealer violence. He also discussed an arson attack that he carried out. He burnt another dealer's car (because he owed him money). He had contemplated robbing him but reconsidered, given the violent nature of the other dealer:

Arson... it was his car... I suppose you don't want to rob the person who would pour petrol through your letterbox when your family's in bed (Smithy).

(c) Reputation-enhancing violence

Finally, some participants reported using mephedrone specifically in order to feel aggressive and to facilitate violence as part of the process of drug dealing. For some dealers, the violent-inducing qualities of mephedrone were useful in helping them to portray a tough and menacing reputation, which is of course necessary in this line of work:

I definitely felt aggressive and violent to other people and I've used M-Cat specifically to make me aggressive and violent to people because I used to deal... I'm quite a nice guy when I'm straight, quite reasonable. I'm not so much when I'm off my head and if someone owes me money, yeah, it's easier to get the money out of them if I'm not reasonable (Smithy).

Smithy was firmly of the view that his ability to carry out acts of violence and portray a violent persona were important assets that would strengthen his status as a dealer, and, in turn, help to ensure that he was not himself robbed or attacked (for his drugs or cash). Smithy also talked about his heightened sense of paranoia when dealing due to carrying and housing large amounts of the drug and large amounts of cash. His home had become an armoury where he hid various weapons for his own protection:

The dealing. Yeah, because I was paranoid continuously on it and I had large amounts of it always around me, and I had large amounts of money always around me, the dealing side of it, every house I lived in looked like a little arsenal really. I'd stick things under table, it was just filled with weapons essentially. I still suffer with paranoia now and I keep a weapon under my bed (Smithy).

Mephedrone Use and Impacts upon Health and Wellbeing.

All of those interviewed reported some kind of adverse physical, emotional and social impacts directly related to their use of mephedrone. These impacts tended to be cumulative, as use of mephedrone became more sustained.

Physical Impacts

The majority of users cited some kind of negative physical side effects associated with their use of mephedrone. The specific effects varied according to how the drug tended to be ingested, as the following quotations reveal:

Negative, it gives you like holes in your nose. I've got a massive hole in my nose...It's so strong it just makes everything corrode. It's powerful (Abby).

I've got a hole in my nose, at the top. It's gone bigger, going into the other nose (Charlie).

It's not a nice drug because I don't see why people are taking it because I know it's absolutely... it messed all my stomach up because I've got stomach ulcers now from it and it really hurt (Jack).

When I first started taking it I took a bit too much, the next day I was just sat and the next day my mum did me a Sunday dinner, and I was trying to eat it and I had to mash everything up. I couldn't open my mouth, I had locked jaw. It really, really hurt. For two days I couldn't open my jaw, so I was drinking soup through a straw. It wasn't nice (Jack).

For a bloke as well, it will just shrivel his penis up, it does make a man's willy go smaller (Morgan).

Some users reported that mephedrone caused severe skin rashes:

Yeah, it flared my skin up really bad, and my friend's father rang social services about me then because I was getting really out of hand with it; I was doing about an ounce a week. So it was either hospital to let it settle my skin and everything, or sectioned (Morgan).

The majority of users stated that rapid weight loss and the blackening of skin around the eyes were common for physical outcomes for mephedrone users. Weight loss was associated with the lack of appetite during withdrawal periods:

It changes you completely, even the way you look. It do make you look like a heroin addict I think, when you're on it. You're all drawn in, you've got black eyes. I lose weight, totally off it, straightaway, it drops off me when I'm on it, so. Say I've done a week the longest, and the weight you lose in that week because you're not eating (Clare).

Finally, two users reported accidentally almost overdosing on mephedrone. Mark believed that he had a lucky escape as his overdose was near fatal:

...so I put the needle in, pierced the skin into the vein, drew back and blood came into the syringe, and I remember pushing half of the solution into my, pushing it up into my, administering it intravenously, half, and I felt the rush and I was like, "phew, that is strong" and then I pushed the rest up, and I started, I had a very intense rush, and I would describe it as, on as that particular occasion, more intense than I've had from smoking crack cocaine. Then I remember hearing a buzzing, bzzzzzz, and going, seeing black. I think my eyes were still open but seeing black. And then I went unconscious. My cousin phoned an ambulance because I started having a fit and like a choking, and when I was on the floor unconscious he was on the phone to the paramedics (Mark).

Emotional and Psychological Impacts

Users reported a range of negative emotional and psychological impacts directly associated with mephedrone use including feelings of paranoia, depression and, in some cases, suicidal thoughts as well as un-nerving visual and auditory hallucinations and nightmares. The following quotations provide a flavour of these diverse impacts:

And then after I come down, then I had two nights sleep not taking anything for like two days and then I woke up and I thought my reflection was going to kill me (Clare).

Yeah, butterflies on the wall. My legs were walking up the side of me, and thinking somebody was up the side of me. I'll tell you the bad dreams, very, very bad, bad, bad, bad dreams (Lou)

When I was taking it I thought I was hearing voices, and I went straight to my doctor and I said, "Look, I'm hearing voices," and he said, "Are you taking drugs?" And obviously I had say, "Yes," and he said, "Right..." and he got me help as well (Jack)

Especially at night-time then as well, if you do a bomb and walk around at night-time, after two or three days of that you will start seeing things you wouldn't even believe. And staying up for two or three days, and taking heavy amounts, is like taking acid, it really does make you hallucinate (Morgan).

I'd say you get depression, anxiety and you can get paranoid off it as well. You can feel like people are watching your house if you're out and everyone's watching because you get like a wet nose, so it makes you want to wipe your nose all the time. Yeah paranoia (Abby)

Depression was identified by most of the sample as one of the many adverse impacts of mephedrone consumption. It had led some users to almost give up on life and certainly they disengaged from usual routines and personal hygiene:

You just don't care about nothing; your job could go out the window, your family. Well it did do me a bit, like I got thrown out and stuff like that, and then I really... like I got on then and then I come down and I was like I've got to sort my life out or this is what my life is going to be, stuck in the car like with nothing (Clare).

You can't be arsed to bath. You can't be arsed to brush your teeth. You can't be arsed to put make-up on. You can't be arsed to walk to the shop unless you've got to (Lou).

Social Impacts

The impacts of mephedrone clearly went beyond the physical and emotional and also impacted upon the social lives of the users and, in many cases, those with whom they were intimately connected. Many users lost their jobs as they failed to attend work and soon became unable to pay household bills. Moreover, as their own lives spiralled downward, this inevitably had consequences for family and friends. Lou - who during interview referred several times to mephedrone as 'poison' and 'the devil' talked about the family impacts:

I lost everybody. My children, my mother, my family, everybody (Lou).

But in the end I was strapped and I was in debt all the time. I had no money, I had no food in the house, I had nothing. It was just like ... it just ruined us, ruined our lives. And that was after a short term, so these people who are doing it now long term I don't know how they are coping (Ryan)

Prevalence of Use

Assessing prevalence of use was not a focus of this research. Nevertheless, many users spoke of the widespread use of mephedrone amongst their friends and associates and how it had taken a hold where they lived, as illustrated in the following quotations:

I would say, including girls as well, I would say of all the people I know about 75-80% have taken it at least once (Morgan)

My friends? I'd say at least 80% of my friends, if not more. All of them have tried it. Lots of people say they're not using it and are using it (Smithy)

They also explained that this was a drug taken by people of different ages (the youngest reported age being nine) and of varying socio-demographic status:

I've seen women who are working, like 30 odd, working, kids and all, have had their kids taken off them, lost their jobs. I mean, they used to be respectable people and family people as well, which you'd never think. It's just everyone out there as well. You'd be surprised. Women like yourself, which you'd never suspect. I know teachers who used to take, I used to sell it to teachers ... and I've sold to nurses from the hospital (Charlie).

Giving up Mephedrone

Interviewees were asked whether and how they had managed to cease using mephedrone and for their opinions on what might help users to give up. In addition, those who took part in the survey also provided some important insights into how they had managed to give up mephedrone and what might help users to give up. The findings from the survey respondents are detailed in Table 5.2 below.

Reasons for Giving Up

The findings from both sources indicate that there were two primary reasons that led users to give up mephedrone: (i) negative health impacts (physical and emotional) and (ii) negative family impacts. A smaller number of users mentioned the financial implications of continued use as a barrier to continuation as well as increased tolerance levels or boredom with the drug. In reality of course, it is often a combination of factors that leads one to reduce drug intake or cease altogether, as indicated by Lou below:

One, I didn't have any money; two, I was losing all control of myself. My family, I could see the impact it was having on other people. I didn't like myself, the things I was doing to get the drug then (Lou).

Routes to Giving Up

There were various ways in which users managed to give up mephedrone. Many in the sample spoke about avoiding 'drug' friends i.e. those who used mephedrone or other drugs as a key positive step in giving up. These users would often stay at home and try to occupy themselves in new ways. Some users went so far as to move from one area to another in order to help them to break former ties with drug-taking friends and acquaintances. Some users talked about the importance of having the support of their family or a partner to help them to continue to abstain. Other users indicated that giving up mephedrone was not particularly difficult and that they simply applied will power to achieve this goal. These users tended to be at the light-use end of the scale of users and were likely less addicted to mephedrone. A small group of users felt that custodial sentences had assisted them in ceasing to consume mephedrone as their daily routines changed and they were separated from their drug-using peers. Two users replaced mephedrone with other drugs in order to specifically avoid the harms that they associated with mephedrone. Finally, a significant number of the sample had received support from drug agencies or other organisations that had aided the process of cessation.

What Helps Mephedrone Users to Abstain?

Finally, in terms of what kinds of help or support users felt would be beneficial to users of mephedrone who were hoping or trying to give up, various insights were provided. Notable amongst the recommendations were: (i) better education about the drug and its harms; (ii) support and counselling; (iii) bringing users together with ex-users who can provide 'real' experience-based advice.

Mark felt particularly passionate about the latter:

You are going to need help from other recovering addicts ... people who are clean and sober who you can identify and relate to, who can gain your trust ... You need to have somebody with empathy, somebody who understands. Somebody who can build a rapport with you quite easily, somebody who can get your attention, give you a bit of hope, give you something to hold onto, "yes, I want a bit of what they've got" (Mark).

Summary

In summary, most of the users who took part in in-depth interviews revealed that they first decided to consume mephedrone in the context of a night out (or sometimes a night in) having fun with their peers where they were invited, or actively encouraged, to try it by a friend. Most users had an initially pleasurable experience prompting further use. The 'buzz' was described as being better than other drugs inducing happiness, chattiness and confidence. Mephedrone also helped some users to forget life's problems.

However, these pleasurable feelings were short lived and users had to deal with debilitating withdrawal impacts including stomach cramps, lock jaw, depression, paranoia, auditory and visual hallucinations and in some cases, psychosis and suicidal ideation. The desire to offset the effect of comedown and to return to the highly pleasurable effects of mephedrone invariably led to 'fiending' – i.e. increased frequency and volume of use. This in turn led to soaring costs and a host of additional difficulties. Over half of those interviewed had become involved in acquisitive crime (including shoplifting, burglary, vehicle theft and street robbery) and three-quarters of those interviewed had committed acts of violence connected in some way to their use of mephedrone. Four somewhat distinct violence-mephedrone links were discerned: (i) violence when 'high'; (ii) violence associated with comedown; (iii) economic compulsion and violence and (iv) violence associated with purchasing and dealing mephedrone. Importantly, regarding the first two categories, interviewees were very clear in their own minds that mephedrone had a

direct and significant influence on them becoming involved in acts of violence. This, they reasoned, must be the case as they were either not usually violent or, would not normally have been violent in relation to such trivial triggers.

Mephedrone also had a range of negative impacts upon the health and social well-being of users. Most users suffered significant physical and emotional side-effects and many were unable to pay bills, look after themselves properly and lost jobs, had children removed from their care and lost contact with family and friends.

Users consistently reported finding it extremely difficult to give up mephedrone. Nevertheless, some had succeeded and all of those interviewed, as well as those who took part in the survey, had important insights regarding what might help users to abstain permanently including: (i) better education about the drug and its harms; (ii) support and counselling; (iii) bringing ex-users together with users to provide 'real' experience-based advice.

In part six that follows a number of these themes are revisited as we hear from expert practitioners about their insights of the various impacts of mephedrone upon users.

Table 5.2: Giving up Mephedrone: Survey Participants' Insights.

Why users stopped	How users stopped	How we can help users to stop
Realising what it is doing to me and what I will lose.	Keeping myself occupied and staying in.	Talking, getting groups together.
Own health and for family- to have a closer bond. And to keep hold of girlfriend.	Jail, drug worker + probation + family support. Lots of support around me.	You can try as much as you like but as long as it is on the street you can't stop it.
Stopped using	Just stopped because I didn't want to use. I didn't like the person I turned in to.	
Bored - had enough. Couldn't get any higher.	Say goodbye to all drug use. Change way of thinking. Drug intervention programme and family help.	Has to come from within.
	Tried to reduce- DAYS helped me	
Family.	Help from drug service, tried to stop on my own- stopped for 2 weeks.	Detox in hospitals
Because it made my mum upset and I hated the comedowns.	Tried to keep myself in. I would lip my mam so she would ground me. I asked for professional help from a drug service.	Government give more money for drug support workers.
It was destroying my mind and body		Raise the Price. Education.
Tolerance rose to the point where the effects were miniscule.	Replaced mephedrone with other drugs.	Offer them support
Fed up	No Money	
Didn't agree with personality and due to health reasons.	Avoided certain groups of friends.	More aware of health factors & health.
Not Sure.		
Effects.	Stopped friend contact.	
Sick of it.	Take it or leave it.	Only I can stop it.
Made hole in leg.		More education.
		Go into schools and educate the young.

Little break.		
Because of depression.	Suddenly stopped. Some withdrawals but manageable	Education from peers.
DVT hospitalized few weeks. Almost died.	Wanted to stop and did stop. Found it quite easy.	
Losing too much weight and too expensive.	Find it quite easy to suddenly stop.	Education.
It was a one of drug and seeing what it does to people's skin.	I just stopped myself, no help needed as I didn't let myself get into that badly.	Every body's different, each person responds in all different ways to coming off it.
Yes, have stopped using.		Don't know.
Made me get sectioned.	Hospital.	They have to want to stop.
It's not a problem.		They can only help themselves.
It's not a problem.	Keep away from people who do it and dealer mobile phone numbers.	I don't know much about it! So could chat more about it or bring someone in.
Weighing up what was better, heroin or miaow and heroin won. So I stopped the miaow. If I carried on it would have killed me.	I just topped. Quickly became repulsed by it. Ended up in hospital with swollen legs. Started using more heroin to the miaow.	Leave a pair of miaow filled trainers so people can find out what they smell like. The drop-in is a great support just knowing it's there.
Financial cost. Doesn't work as well (tolerance). Losing Weight. Will power.	Will power.	Education people need to learn for themselves.
Because of the harm it did to me.	Went to prison. Saw this as a way of stopping	Education. Provide support.
		Education.
Had enough of being unable to spend time with non-users.	Motivation.	
	You can't they need to want to do it themselves when they're ready.	
Same time as I stopped cocaine, 3 months ago- new partner anti-drugs agreed to me using a few times a year at special events.	Just stopped using then for extra support contact Teds for support worker.	

I've cut down on it like I've cut down on everything.		
Ruined relationships with my family.	Moved away from area. Changed my friends.	Offer support and counselling.
I'm trying because its putting me down and making me lose my family.		It's really hard because its everywhere I go.
Because after doing it every day for weeks it makes you feel like shit when your doing it.	Moved away from the area.	
Too expensive. Stole to fund it. Dangerous.	Cut down and used amphetamine.	Use a treatment agency.
Losing sanity.	I just stopped.	Prescribed Benzo's.
		Prescribed diazepam.
Only did it for 5 days.	Stopped going out for a few weeks.	Showing more adverts, more meetings.
I moved to the refuge and got custody of my son after I stopped.	Went into a refuge. They helped a lot.	Dealing with the initial problem to start with counselling helped a lot.
Went a heroin and went to jail.	Went to jail.	Lock them up.
Felt the time for experimenting was over.	I was never addicted so I just stopped	It is seen as a 'safe' alternative to most drugs. More publicity on the long term effects without scaremongering.
		Counselling.
Got too much out of control, ended up on heroin.	No just stopped.	
	Didn't use much.	Don't know.
Because it is a cheap drug.	I just stopped with my own will power.	
Don't take it regularly. Take it or leave it.		
It's not the drug you would want to take regularly - lose weight.	Didn't have any and couldn't get any.	Find a substitute, address the facts etc. more info.
Playing head games.	Changed my mates.	More group chats.
		Lock them up.
Makes me nasty and rob a lot on it.	Change friends circle.	Help from drug agencies.
No worth doing now.	Taking other drugs.	Can't help anyone who is flat out of it

Now I am clean.	Woke up in hospital and family members helped me through.	Tell them my experience.
To sort my life out.	Just stayed away from it.	You can't.
	Just stopped.	Not using it now.

Part Six: Qualitative Research Findings (ii)

The Views of Practitioner 'Experts'

In this part of the report the findings from semi-structured interviews with a range of practitioner experts are discussed. As indicated in the methodology section of this report, the experts had direct experience of working with mephedrone users but also had extensive experience of working with users of other drugs and so were able to discern the particular impacts that mephedrone had upon the lives of the clients that they were assisting. Table 6.1 below provides an overview of the sample of experts interviewed for this project.

Agency Type	Coding used in findings	Number of Interviews
Charitable organisations providing a range of services for drug users & their families.	Independent Drugs Practitioner	6
Charitable organisation for disadvantaged and homeless people.	Independent Charity Practitioner	2
Charitable organisation for disadvantaged and homeless people	Health Practitioner	1
Offender Management and Drugs Liaison.	CJ Drugs Practitioner	1
Probation Service.	CJ Practitioner	1
Prison Offender Intervention (drug) Service.	CJ Drugs Practitioner	3
Criminal justice drug through and aftercare service.	CJ Drugs Practitioner	2
Youth Offending Team.	CJ Practitioner	2
Mental Health Day Service.	Mental Health Practitioner	2
Total		20

The findings are organised around five key themes: (i) The physical impacts of mephedrone; (ii) the emotional impacts of mephedrone (iii) family and social impacts; (iv) the links to acquisitive crime; and, finally, (v) links to aggression and violence.

The Physical Impacts of Mephedrone

Experts had witnessed a range of serious negative physical effects of mephedrone use upon their clients including rapid and extreme weight loss, damage to nasal passages and injection site damage:

The top three would probably be the physical health side. Things like peoples noses coming away, very run down, poor circulation, so the kind of physical health... breakdown of, you know, nasal passages, poor circulation, extreme weight loss (Independent Drugs Practitioner).

They get a lot of bruising, but not necessarily bruising at the site they're injecting, which I find strange. Abscesses they've had, lots of lumps and bumps, a burning sensation when they do inject. And some of them are having symptoms which they find inexplicable, and they've only had these symptoms since they've been injecting mephedrone (Independent Drugs Practitioner).

Some experts reported that heavy end mephedrone users had disregarded safe injecting practices when using mephedrone. Specifically, they had become aware of users sharing needles, injecting into the same site on multiple occasions and using unsafe injecting equipment. These risky behaviours had apparently led to an increase in blood borne viruses in certain parts of South Wales:

We've had a lot of normally 20-year injecting drug users who have never shared works, never kind of kept going in the same site, would always take care with regards to injecting techniques, who went from 20-years safe practice into sharing with 20 people, using dirty pens, blood borne viruses has increased 50% in (region of south Wales) as a result...It's just bizarre on how someone can go 20 year injecting to now all of a sudden having six open wounds that need surgery on their arms, and big holes in their groin, legs going black, having fits, having bladder problems (Independent Drugs Practitioner).

The damage caused by intravenous use of mephedrone was emphasised by many of the practitioners:

But people injecting twenty, 30 times a day, you know, it doesn't take a genius to work out that they're inflicting five, six, seven times as much damage on their veins as they would be if they were using heroin, say, for instance ... And it's much more corrosive, yes (Independent Drugs Practitioner).

And people were nearly losing limbs because they were injecting it (Health Practitioner).

The Emotional Impacts of Mephedrone

The similar range of emotional impacts to those described by mephedrone users in the previous section, were also observed by practitioners who worked with users. These included depression, paranoia, psychosis, schizophrenia and, in some cases, these symptoms were so severe that clients had self-harmed and/or attempted suicide.

Mental health, you know, paranoia, schizophrenia, certainly drug induced psychosis but on a much, I would say, more intense and much faster, much shorter period at least before that comes on, if you follow me (CJ Drugs Practitioner)

This particular young girl jumped out of a window and broke both of her feet. That was a bit of wake-up call and ... that wasn't an attempt at self-harm or suicide, it was just kind of her head had completely gone. She didn't really know what she was doing (Independent Drugs Practitioner).

People come in, you know, who have been up for a few days and haven't eaten and haven't slept, and just talking to them you can see the place that they're at. Mentally, they're not in a great place, and some of them have mental health problems before they even start, and it seems to exacerbate it, the mephedrone does (Independent Charity Practitioner).

Scratching their faces as well, they think there is something crawling on their faces so they'll be very irritable, edgy, paranoid and clearly delusionary and sort of, you know, hallucinating (CJ Drugs Practitioner).

The mental anguish and confusion caused by mephedrone had been observed first hand by many of the practitioners interviewed and manifest itself in various ways across users:

Rocking back and forward in the chair, playing with everything, picking up things, picking up the chair, standing up, sitting down, getting quite hyperventilating, "They're all doing my head in, I'm going mad. I've been used as a mug, I'm not having this anymore." Kind of pacing the floor, pulling at his hair, picking at his skin, scratching everywhere. Not feeling very comfortable in his own body, working himself up into kind of frenzy then I suppose until he'd like start walking around the room pulling at his hair and bashing his head on the wall (Independent Charity Practitioner).

He picked up a phone on the desk and he started continually pressing numbers, just random... you know, he must have pressed 50 or 60 numbers before I sort of managed to get through to him, "What are you doing?" "I'm

ringing my mum," and he's still pressing numbers, just pressing numbers as quickly as he could. I said to him, "Put the phone down," and it was like as if I wasn't there. "Put the phone down. Put the phone down. Put the phone down." And in the end I took the phone off him and put it down and he looked at me as if, "Where do you come from?" You know, he wasn't aware of my presence at all until I removed the phone from his grasp and it was only then, "Who did that?" (CJ Drugs Practitioner).

Drug workers spoke about self-harm and suicide more frequently than the users who took part in interviews. Clearly they had many extremely vulnerable people on their case loads:

Definitely self-harm. It seems that the higher they get, the lower they get. And heavy use over time, as well as the kind of environmental factors of family breakdown, losing jobs, those kinds of things. There is one particular gentleman that comes to my mind. He's only sixteen now, so this has been happening over the last couple of years. He tried to throw himself in front of a train and that was his kind of wake-up call (Independent Drugs Practitioner).

I was a bit worried about suicidal issues and he'd come in with cuts on his arms quite often, and he wasn't very open to talking about what had gone on with any sort of emotion. But there was still lots of self-harm issues that I could see, like fresh wounds on his arms and things like that (CJ Practitioner).

Yeah, self-harm has been not very, very common but there's definitely at least three or four cases in the last year that I've had personal interaction with who have committed self-harm, not having done so before (Independent Drugs Practitioner).

The withdrawal phase was reported by practitioners as a particularly vulnerable time for users and a period when they were most prone to self-harming:

When they're on the drug they're happy-go-lucky and they're flying high and whatever, but it's the come down after it is. It takes about three or four, five days to come down and that's when...Yeah, that's when the people try and kill themselves, trying to harm themselves (Independent Charity Practitioner)

When they're high they're so high, they say it's the best high that they've ever, ever had. So when they come down from that they consequently feel really, really low, really miserable and really fed up. So the number of people that have come in and told me that they're suicidal and they want to kill themselves and all the rest of it is... I can't... that was every day, I think,

I had somebody coming in and telling me that they were suicidal (Health Practitioner)

Family and Social Impacts

Expert practitioners had observed the lives of some of their clients taking dramatic downward spirals as their use of mephedrone increased. Users accrued significant debt, became unemployed, gained criminal records and were sometimes imprisoned, had children removed from their care and experienced relationship and family break-up. Some of these social costs were likely to be difficult to overcome, even in the long-term:

Total breakdown of kind of normal life then really, family life, perhaps losing jobs, debt (Independent Drugs Practitioner).

Like one of those was a break up in relationship, another one was down to financial debts due to M-Cat, another one was that their children were about to be adopted, going through social services (Health Practitioner).

Practitioners were also aware of clients whose lives had fallen apart in various ways and who were determined to give up mephedrone but had, nevertheless, failed to abstain in the long-term:

The fact that he now has a criminal record, he lost his job, family problems, his partner doesn't want him to see his children. You know, obviously he can see his children but supervised contact. All of these significant negative things was a bit of a wake-up call to him, yet he's still slipped back (Independent Drugs Practitioner).

Some people will try and nip it in the bud, but unfortunately there are some then who hit rock bottom, who come in jobless, been kicked out of home, got no cash, on their arse completely (Independent Drugs Practitioner)

Mephedrone and Acquisitive Crime

Most of the practitioners interviewed had worked with clients who had become involved in some kind of acquisitive crime in order to fund their use of mephedrone. Offences include shoplifting, burglary and robbery.

They spend a lot of money on M-Cat, and to fund that involves thieving for most of them (Independent Drugs Practitioner).

It doesn't seem to be kind of planned, so it's usually the minute they kind of... they don't want to but then they start, and then it's just like they just feel as if they can't stop and they need more of it. And they're not sort of

thinking clearly what they're doing, so they're just getting money from anywhere really. Robberies are the main ones (CJ Practitioner).

Numerous practitioners indicated that whilst mephedrone was a relatively cheap drug, users nevertheless often spent significant amounts of money to fund their drug habit due to rapid increases in tolerance associated with mephedrone abuse:

It's just when they're on Meow, because the quantity that they need is so vast than obviously when they're taking heroin, they can maintain maybe a £50 a day habit on heroin, whereas with Mephedrone you're taking of hundreds of pounds a day. And obviously if they're with a partner at the time they're also funding their drug habit as well (Independent Drugs Practitioner).

When people start using it it's not acquisitive crime because it's so cheap and everybody's got it and everybody's like sharing with everybody else. The acquisitive crime will come later one when they're so hooked that they're doing it every half an hour and then they need a lot. At one point there was one guy that was on with us that was doing like seven, eight grams a day. Your body can't sustain that. But you've got to fund that as well because that's a daily thing (CJ Drugs Practitioner).

Several practitioners recounted direct knowledge of clients who had become prolific shoplifters or burglars in order to sustain their mephedrone habit:

So she will just go to a supermarket, get a trolley, fill it up with meat or electrical goods and walk out. And she will do kind of three or four supermarkets a day just to keep herself in Meow and heroin, and whichever partner she's with. So she's now coming onto the prolific offender scheme, so when she kind of goes off the rails she goes off big time. She'll pay a taxi driver to take her wherever to do her 'shopping' (Independent Drugs Practitioner).

And the other one will hook up with a male, go on a crime spree and she did five burglaries (Independent Drugs Practitioner).

A few practitioners were also aware of clients who were already involved in criminal activity but whose criminal actions had become more risky or dangerous as a result of their use of mephedrone abuse:

How can I put it, a career criminal of very basic level intelligence was saying, "I felt like I could just walk in any shop and steal anything I wanted, and nobody could stop me or touch me. And really that nobody could really see me doing it, that I could just... I was invincible and that is all I wanted to do.

And that is all I wanted to do was take more ... I felt so strong and I just wanted to keep on doing it because I've never felt like that before." Now when you, you know, when you couple that person's experience of that drug with the fact that they're already a prolific offender, that is quite a dangerous sort of scenario, combination really (CJ Practitioner).

Mephedrone, Aggression and Violence

Practitioners had both direct and indirect knowledge of their clients' use of aggression and violence in connection with mephedrone use, as the following excerpts illustrate:

He started using mephedrone on weekends with his friends, kind of boys going down the pub drinking lots and then they started taking mephedrone. And this was happening over a period of probably up to about a year, where because of tolerance level they were having to take more and more and more. And it got to a point where, in his words, he kind of lost his head over something quite small, and was done for criminal damage and assault. Something he says is completely out of character (Independent Drugs Practitioner)

Practitioners recounted many examples of long-term clients who had never exhibited aggressive or violent behaviour until their involvement with mephedrone:

Say if we had ten service users here now who weren't aggressive, I'd say eight of them would be aggressive on the come down of the M-Cat (Independent Charity Practitioner).

Just very... people becoming very angry, very aggressive, they're on the edge as if they're about to start fighting, not taking up a boxer's stance sort of thing but when you're trying to talk to them they can be very aggressive in their demeanour, shouting, waving arms about, threatening. Yes, just becoming generally threatening, anxious and threatening aggression to people (CJ Practitioner)

We had a young man and he came in, he signed in, he had a shower and you could see he'd taken something. The same as he was normally, he went on the computer, he read something on the computer on his Facebook, something set him off and he was chasing his brother around the dining hall. Then he did eventually get him and he tried to strangle him. We separated them and we took him outside, and he started fighting with a guy in the graveyard. We told him to leave, he told us to f**k off, this place is s**t.

And two days later when he came back and he'd got no recollection of being in here (Independent Charity Practitioner).

Several members of staff stated that there was an association between the rise in domestic violence in the communities where they worked, and mephedrone use:

No, domestic violence, and there's quite a lot of that going on at the moment. Family members attacking family members, long-term relationships breaking down. If you have a chat with social services they've seen an increase in child protection cases where parents are taking mephedrone, so it's having a knock-on effect on everything. Crime rates are changing, more social service involvement, more adult protection concerns, mental health increases. Domestic violence has more than doubled (Independent Drugs Practitioner).

Members of staff across several agencies stated that mephedrone users were particularly prone to being violent during the comedown phase of their drug use.

Oh, they come in here and very aggressive. It's not so much when the drug is inside them, it's the come down after (Independent Charity Practitioner).

Other sort of strains of violent behaviour have been verbally aggressive that stemmed from the extreme anxiety that people feel once they've been using for a while. The paranoia that grips people if they've been awake for seventy-two hours. And so people who have been verbally aggressive to partners and neighbours and things like that, because of perceived goings on that they've had, psychosis essentially (Independent Charity Drug Practitioner)

Some practitioners were aware of noticeable increases in various forms of violence associated with mephedrone addiction and, in particular, pointed to an increase in more 'brazen' forms of violence:

Violent crime has increased ...There's more street robberies, there's more blasé burglaries where they're walking in and burgling people's houses when they're actually in the house. There's obviously more violence with regards to dealers expecting payback, especially from the pushers. And then people, who predominantly have been friends, are kind of on a comedown kind of losing the plot, paranoia's getting extremely high in the area. So there's a breakdown in mental health, therefore more likely to trigger violence between people who have predominantly been friends before. A more brazen violence and risky violence (Independent Charity Drug Practitioner).

Aside from their knowledge of violence committed by clients, many practitioners also had direct experience of violence and aggression during their dealings with mephedrone users:

They can be very aggressive in their demeanour, shouting, waving arms about, threatening. Yes, just becoming generally threatening, anxious and threatening aggression to people (Independent Drugs Practitioner).

If you ask a tricky question they're getting quite aggressive. Reporting kind of times when they've been violent, when normally violence has never kind of entered in their kind of criminal history in the past (Independent Charity Drug Practitioner).

In one case a practitioner was punched in the jaw by a mephedrone user who normally was placid and respectful. The user, who apparently had no recollection of the event, received a custodial sentence:

Yes. It was absolutely [linked to mephedrone use] ... had never posed any problems or threats to me whatsoever, and he couldn't think straight and up with his fist, hit me on the jaw. And then he was arrested, went to prison, but when he got to the court he said he had no recollection whatsoever of what he'd done and he said, "I can't believe..." It was about twelve or fifteen hours before he realised and he said, "I can't believe that I did that to somebody that I respect so much." He said, "I just feel so ashamed of myself." So no recollection at all. (Health Practitioner).

Practitioners were clear that the behaviours that they had to manage were distinct and beyond the normal challenges that confronted them in working with clients addicted to other illicit substances or clients with a range of social and emotional difficulties:

He was going to knife us all, he was going to kill us all, and I think probably if he had a knife he might well have. He didn't, and he was really difficult to manage to even get him to leave the centre, and I think the police were called in the end and took him into custody. And that's not normal for us, we can normally always manage people. But we can't when they're completely taking enough mephedrone and we cannot manage them (Mental Health Practitioner).

It was up in A and E ... managed to throw themselves against a plate glass window ... with enough force to break the window, and then he picked up shards of glass and was threatening and waving those around and wanting to attack everybody. He was physically restrained, it took six male police

officers to restrain the individual and he had to be, what is the term, medically sedated (Independent Drugs Practitioner).

Whilst most of the practitioners were of the view that there was a clear link between mephedrone use and aggression and violence, some practitioners also recognised that the links were somewhat more complex. One criminal justice practitioner felt that mephedrone users who became aggressive or violent already had such tendencies, the drug simply unlocked them:

And I think, like a lot of drugs, it unlocks... you know, takes away some of his inhibitions and unlocks some of the sort of underlying issues that you've got already. And the people that have been aggressive in the extreme under it have already been people with a bit of aggression in them. So I'm not sure that it's... it doesn't already facilitate what is already there, if you follow me? (CJ Drugs Practitioner).

Another very experienced drugs worker recounted the story of a man in his early thirties who had become extremely unstable and violent after his abuse of mephedrone. This was completely out of character:

He's 34. Twenty years in substance use, well, more than 20 years in substance misuse, started at the age of 11. Within a three month period was starting to have major health problems, starting to fit, have blackouts, people would rob him when he was having a blackout in the street. And then snapped and became extremely violent. So during the kind of most vulnerable stages was presenting as a withdrawn person, sitting in a chair, shaking, having panic attacks, couldn't breathe. And then other a progression of a couple of weeks would start kind of slamming things on the table or pushing the chair back in an aggressive manner. And then reported on the Monday that he completely lost the plot, was in a house party and completely lost the plot, smashed the flat up, was randomly attacking people with like bottles and legs of chairs that he'd smashed up, and then presenting the day after completely ... hard to describe his behaviour really, like a wild animal is the only way of describing him and that was on a comedown (Independent Drugs Practitioner).

When I pressed the drug worker on whether she was sure that it was mephedrone specifically that had led to this young man's violence, she explained:

It was linked to the taking of that drug, but then because of obviously child protection issues, having the child removed, having supervision, contact of that child removed, subsequently had a negative impact where he went and just used more - thought bugger it, I'm going to go off and use whatever.

So there were lots of other kind of underlying things, but heroin use had dropped. He wasn't using the heroin, was sporadically picking up his Subutex prescription, dropping in and out of treatment. Whereas he'd had a three year period testing negative, doing really well, no health problems, no mental health issues (Independent Drugs Practitioner).

Experts all agreed that the negative impacts of mephedrone were multi-layered, often affecting clients' physical and mental health, harming or destroying family relationships, leading to job loss and in some cases imprisonment. Most experts rated mephedrone as amongst the most damaging and debilitating drugs that they could recall, as exemplified by the following narrative from this experienced drug worker:

But there's definitely been an escalation in everything crime-wise, violence-wise and in kind of how people are presenting, even down to their injecting techniques. It's just bizarre how someone can go 20 year injecting to now all of a sudden having six open wounds that need surgery on their arms, and big holes in their groin, legs going black, having fits, having bladder problems. And how people have kind of deteriorated, losing like three stone within a couple of months, and even their kind of decrease in mental health and just how quickly people are deteriorating. So, yeah, it's been one of the worst drugs that I've come across (Independent Drugs Practitioner).

Relatedly, drug-workers were often pleased and relieved when former heroin addicts, who had switched to mephedrone, returned to a more 'stable' position of using heroin:

I was talking to drugs workers this week and ... you know, along the lines of, "isn't it nice to see him back on the heroin." (Independent Drugs Practitioner). "It's so nice for them to be back on the heroin because, you know, they were absolute nightmare on that Meow stuff, but now they're back on the heroin, you know, everything is okay again." And I heard that, honest to God, it's just if you had told me that three years ago that we'd be saying that about heroin, I would have looked at you daft. I've heard that on numerous occasions, people being thankful that somebody has managed to find their way back onto heroin (CJ Drugs Practitioner).

Finally, some of the expert practitioners had good local knowledge of drug-dealing and its links to violence. One of the particular problems highlighted with mephedrone in this regard was the practice of providing mephedrone free of charge but with 'interest' payments (known as 'laying'), as the following practitioner explains:

So they'll give a drug user an ounce of mephedrone and then expect payment within a week, and then obviously there's a lot of violence surrounding that as well, if they don't pay back. Each dealer's got their own methods of getting their money back. Some boys will just basically attack people with a plank of wood with nails in, and attack their legs, break their legs or damage their legs. A boy in (xxx) will just kidnap people, take them up the mountain and frighten them to death. One in (xxx) will just randomly go up, in their houses and rob. There's another boy from (xxx) who will just walk in your house and take everything that's in your house.

Q And you know this by speaking to the users who've owed them money, who've recounted these stories to you?

A Yeah. Sometimes they don't even accept money at the time, they just... there are two types of drug dealers. There are those that sell on demand and those that are pushers who will just know someone is ... who's been using or is in withdrawal and will push an amount on expecting payment back knowing that they know the consequences of not doing that. So we've got a selection of pushers as we call them and then dealers. Dealers, those who basically supply on demand, and then those that are pushing on people larger and larger amounts knowing that they're then going to get payment back or there'll be consequences for that.

In summary, expert practitioners' views essentially mirrored those of the users that were interviewed in terms of the debilitating physical, emotional and social harms associated with the use of mephedrone. Practitioners generally found the behaviour of mephedrone users to be significantly more challenging than those of other drug-using clients. Many practitioners had been on the receiving-end of aggressive and violent behaviour by mephedrone-using clients, most of whom had not exhibited such tendencies in the past. Many had been verbally threatened and several had been physically assaulted. Practitioners also reported a range of acquisitive crimes committed by their clients specifically linked to their abuse of mephedrone and the necessity to fund their increased use of this highly addictive drug. In addition, given their more widespread knowledge and experience of working with many users of mephedrone and other drugs, they were able to discern that mephedrone appeared to have more damaging impacts than other drugs and, as identified above, many drug workers were 'relieved' when they learned that former heroin addicts (who had become involved with mephedrone) had returned to heroin. Overall, practitioners indicated that the behaviours that they had to manage were distinct and beyond the normal challenges that confronted them in working with clients addicted to other illicit substances.

Part 7: Conclusions and Recommendations

Conclusions

In conclusion, the research findings indicate that mephedrone is associated with involvement in acquisitive and violent crime as well as a wide range of physical, emotional and social harms for those users who become addicted to the drug and use it on a regular (notably daily or weekly) basis. Just over 40% of those who took part in the survey and over 75% of those interviewed, reported engaging in violent crime as a result of their abuse of mephedrone and over half of those interviewed reported having engaged in acquisitive crime (such as burglary, street robbery and shoplifting). Four somewhat distinct violence-mephedrone links were discerned: (i) violence when 'high'; (ii) violence associated with comedown; (iii) economic compulsion and violence and (iv) violence associated with purchasing and dealing mephedrone. Importantly, regarding the first two categories, interviewees were very clear in their own minds that mephedrone had a direct and significant influence on them becoming involved in acts of violence. This, they reasoned, must be the case as they were either not usually violent or, would not normally have been violent in relation to such trivial triggers. Many experts shared this view based on their long-term work with abusers of a range of drugs.

Mephedrone also had a range of negative impacts upon the health and social wellbeing of users. Most users suffered significant physical and emotional side-effects and many had contemplated suicide during the debilitating withdrawal periods.

Finally, users consistently reported finding it extremely difficult to give up mephedrone and this was also acknowledged by practitioners who had witnessed their clients relapse on many occasions. Users generally gave up either because of the negative health impacts (physical and emotional) or negative family impacts. Users generally had to break former ties with drug-taking friends and acquaintances and change their lifestyle in order to succeed in abstaining from mephedrone use. A significant number of the sample had received support from drug agencies or other organisations that had aided the process of cessation.

All of the users interviewed, as well as those who took part in the survey, had important insights regarding what might help users to abstain permanently including: (i) better education about the drug and its harms; (ii) support and counselling; (iii) bringing ex-users together with users to provide 'real' experience-based advice.

Finally, it is important to note that those users interviewed likely represent a particular sub-category of mephedrone user. These (relatively young) males and females were all, at the time of interview, receiving some kind of assistance either with their ongoing mephedrone abuse or other drug-related or social problems and perhaps represent users experiencing the most debilitating impacts. That said, included in this sample were users who had only dabbled in the drug as well as those who used daily, every other day and only at weekend. Data from the survey of 67 users across South Wales permits a somewhat broader glimpse into the lives of mephedrone users and did not conflict in any way with the findings reported from those who were interviewed in depth. Nevertheless, it is not possible to know how representative this group of users are of the broader group of users across South Wales or beyond. For example, college and university students or users in full-time employment¹⁵ may have a rather different experience of mephedrone use.

Recommendations

Education: whilst there is a growing drug education literature emerging across Wales, much of the advisory and preventative materials that consider mephedrone tend to deal with it as part of a more general approach to tackling new psychoactive substances. Mephedrone appears to have distinctly debilitating impacts and so it would seem important to deal with this drug in isolation when educating people about its effects and harms. Education could come in various forms but ought to emphasise the physical, emotional and social impacts as well as the potential (as yet unknown) long-term damage of using mephedrone. Materials would need to be tailored to various audiences including potential users but also parents, teachers, practitioners, youth workers, health workers, staff at late night venues and so forth, all of whom may have knowledge of those using (or vulnerable to using) the drug. In addition, a diverse range of institutions could be targeted in different ways including schools, youth centres, colleges, universities, drug agencies, health centres and hospitals. Social media as well face-to-face presentations could be combined with information packs and signposting to relevant agencies for advice and support.

Education: Drawing upon the knowledge and experiences of ex-mephedrone users would be beneficial. Much like the Operation Trident anti gun and gang initiative in the Metropolitan Police Force that utilised ex-gang members to speak out about the harms, the 'real' voice of the ex-user will likely be more impactful than relying solely upon agency experts to deliver key preventative and harm

¹⁵ In fact one user who also dealt mephedrone indicated that he had provided school teachers and nurses with the drug and suggested that the drug 'knew no boundaries'.

reduction messages. Using carefully developed DVDs and education packs, ex-users could accompany practitioners on educational campaigns in schools, colleges and universities, for example. Given the growing focus amongst young people upon physical appearance, one aspect of this campaign could perhaps focus upon the negative impacts of the drug upon appearance including its distinctively off-putting odour.

Treatment: Given the broad range of impacts that sustained use of mephedrone can have on the lives of users and their families, any 'treatment' would necessarily have to take this complexity into account. Networks of Support could be developed to ensure that users could access the relevant range of services to deal with the physical, emotional and social harms of mephedrone use.

Police Recording Measures: better recording of all mephedrone-related 'incidents' and crimes, with a particular emphasis upon more carefully identifying the kinds of acquisitive and violent crimes that users commit at national and local levels.

Data Synthesis: careful and regular synthesis of relevant data from police, probation, prison, health, social services, education and so forth in order to more accurately capture a national picture of the multiple physical, emotional and social harms associated with mephedrone use.

Further Research: Given that the current research only accessed local users (i.e. people resident in South Wales), further qualitative research specifically focusing upon college and university students in Wales may be useful. It is possible that their experiences or patterns of usage may differ.

Future Research: Future qualitative research could also try to untangle the multi-dimensional and complex associations between drug combinations and violence and further explore the four mephedrone-violence categories identified here. Also it is still somewhat unclear when, precisely, violence is most likely (i.e. during the up, just as the buzz wears off, during comedown, or all of these).

References

- ACMD (2011). *Consideration of the Novel Psychoactive Substances ('Legal Highs')*. Advisory Council on the Misuse of Drugs. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/119139/acmdnps2011.pdf.
- BBC News (2010). Government advisor Eric Carlin quits over mephedrone. Available at: <http://news.bbc.co.uk/1/hi/uk/8601315.stm>
- Broadway, R. (2013) Quarterly report: 1st January to 31st March 2013, Gwent: Open Access Local Services.
- Brookman, F., and Robinson, A. (2012) 'Violent Crime' in M. Maguire, R. M. Morgan and R. Reiner (Eds.), *The Oxford Handbook of Criminology*, (5th Edition), Oxford: Oxford University Press.
- Brunt, T.M., Poortman, A., Niesink, R.J., and Van Den Brink. W. (2011), 'Instability of the ecstasy market and a new kid on the block: mephedrone', *Journal of Psychopharmacology*, 25 (11): 1543-1547.
- Chadd, A. (2013). Mephedrone. Available: www.childreninwales.org.uk/20795.file.dld. Last accessed 31/07/2013.
- Coleman, C., & Moynihan, J. (1996). *Understanding Crime Data: haunted by the dark figure*. Philadelphia: Open University Press.
- Corkery, J.M., Fabrizo, S., & Ghodse, H.. (2012). Mephedrone-Related Fatalities in the United Kingdom: Contextual, Clinical and Practical Issues. Available at: http://cdn.intechopen.com/pdfs/32134/InTech-Mephedrone_related_fatalities_in_the_united_kingdom_contextual_clinical_and_practical_issues.pdf. Last accessed 17th Sept 2013.
- D.A.F.S, GOALS, and CRI. (2012) Mephedrone (Meow, MKAT, Bubbles, Drone, 4MMC) presentation.
- Daly, M. (2012). Drone Strikes. Available at: <http://www.drugscope.org.uk/Resources/Drugscope/Documents/PDF/Publications/StreetDrugTrendsSurvey.pdf>. Last accessed 31/07/2013.
- Dargan, P.I., Albert, S., and Wood. D.M. (2010). 'Mephedrone use and associated adverse effects in school and college/university students before the UK legislation change', *International Journal of Medicine*. 103 (11): 875-879.
- Deluca, P., Schifano, F., Davey, Z., Corazza, O., Di Furia, L. & the Psychonaut Web Mapping Research Group. (2009). Mephedrone Report, Institute of Psychiatry, King's College London, London (UK), Available from: <http://www.psychonautproject.eu>. Drugs and Family Support (2013). Mephedrone information sheet. Wales.

DrugScope. (2013). Mephedrone, methedrone, and methylone. Available: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/mephedrone>. Last accessed 10th April 2013.

EMCDDA. (2011). Responding to new psychoactive substances. European Monitoring Centre for Drugs and Drug Addiction, Lisbon. Available: www.emcdda.europa.eu/.../att_145850_EN_EMCDDA_DiF22_EN.pdf. Last accessed 07/04/2014.

European Commission. (2011). Youth attitudes on drugs. Flash Eurobarometer. Available: http://ec.europa.eu/public_opinion/flash/fl_330_en.pdf. Last accessed 07/04/2014.

Europol. (2010). Europol-EMCDDA Joint report on a new psychoactive substance: 4-methylmethcathinone. Available: <http://www.emcdda.europa.eu/html.cfm/index132196EN.html>. Last accessed 31/07/2013.

Gibbons, S and Zloh. (2010). An analysis of the 'legal high' mephedrone. *Bioorganic & Medicinal Chemistry Letters*. 20 (1), p4135-4139.

Greig, N. (2013) Ystrad Mynach & Newport Drug Test Pilot Report.

Gwent Drug Intervention Programme. (2012). General Intelligence report February to April 2012.

Hand, T. and Rishiraj, A. (2009) *Seizures of Drugs in England and Wales, 2008/09*. Home Office Statistical Bulletin 16/09. London: Home Office.

Home Office. (2013) *Drug Misuse: Findings from the 2012/13 Crime Survey for England and Wales*. London: Home Office.

Homeless and Vulnerable Adults Service (2013) *The use of mephedrone (Meow Meow) amongst injecting drug users in Swansea*.

Lusthof, K., Oosting, R., Maes, A., Verschraagen, M., Dijkhuizen, Sprong, A. (2011). 'A case of extreme agitation and death after use of mephedrone in the Netherlands', *Forensic Science International*, 296 (1): 93-95.

Maskell, P., De Paoli, G., Seneviratne, C., Pounder, D.J., (2011). 'Mephedrone-Related Deaths', *Journal of Analytical Toxicology*, 35 (3): 188-191.

McElrath, K and O'Neill, C. (2010). 'Experiences with mephedrone pre- and post-legislative controls: Perceptions of safety and sources of supply', *International Journal of Drug Policy*. 22 (2), p120-127.

Measham, F., Moore, K., Newcombe, R., and Smith Z. (2010). 'Tweaking, bombing, dabbing and stockpiling: the emergence of mephedrone and the perversity of prohibition', *Drugs and Alcohol Today*. 10 (1): 14-21.

Meyer M. R., Wilhelm J., Peters F. T., and Maurer H. H. (2010). Beta-keto amphetamines: studies on the metabolism of the designer drug mephedrone and toxicological detection of mephedrone, butylone, and methylone in urine using gas chromatography-mass spectrometry. *Analytical and Bioanalytical Chemistry*, 397: 1225–33.

Motto, L. (2012). Emergency Room Response to Bath Salts. Available: http://laurenmotto.yolasite.com/resources/motto_U2D2.pdf. Last accessed 21/08/2013.

Newscombe, R. (2009) The Use of Mephedrone (M-cat, Meow) in Middlesbrough. Lifeline Publications.

Nutt, D. (2012). "Meow Meow" - should mephedrone have been banned? In: Drugs without the hot air. Cambridge: UIT Cambridge Ltd. P114-131.

NTASM. (2012). Club Drugs: Emerging Trends and Risks. National Treatment Agency for Substance Misuse. Available: <http://www.nta.nhs.uk/uploads/clubdrugsreport2012%5B0%5D.pdf>. Last accessed 07/04/2014.

Psychonaut Web Mapping Research Group. (2010). Mephedrone Report. Available: <http://www.psychonautproject.eu/documents/reports/Mephedrone.pdf>. Last accessed 31/07/2013.

Ramsey, J., Dargan, P.I., Smyllie, S., Davies, S., Button, J., Holt, D.W. & Wood, D.M. (2010). Buying 'legal' recreational drugs does not mean that you are not breaking the law, *Quarterly Journal of Medicine*, Vol.103:777–783.

Richards, C. (2012). An audit on the range of drugs taken by remand prisoners prior to entering HMP Swansea (May 2012-July 2012). HMP Swansea.

RIUW. (2012) Profile of Mephedrone Use and Supply in Wales (Sanitised for Partner Agencies). Wales: Regional Intelligence Unit Wales.

Sands Cymru. (2013). Mephedrone Information Session.

Sheridan, J., and Butler, R. (2010). "They're legal so they're safe, right?" What did the legal status of BZP-party pills mean to young people in New Zealand? *International Journal of Drug Policy*, 21, 77-81.

South Wales Police. (2012). Western BCU Mephedrone Profile- July 2012.

TICTAC. (2012). Swansea Results from the Pooled Urine Analysis Project. TICTAC communications Ltd.

UNODC. (2013). The challenge of new psychoactive substances. United Nations Office for Drugs and Crime. Available: http://www.unodc.org/documents/scientific/NPS_2013_SMART.pdf. Last accessed 07/04/2014.

Van Hout, M.C . & Bingham, T. (2012). 'A Costly Turn On: Patterns of use and perceived consequences of mephedrone based head shop products amongst Irish injector', *International Journal of Drug Policy*. 23 (3): 188-197.

Van Hout, M.C. and Brennan, R. (2011), 'Plantfood for thought: A qualitative study of mephedrone use in Ireland', *Drugs Education Prevention and Policy*, 18 (5): 371–381.

Winstock, A. Mitcheson, L. and Marsden, J. (2010). Mephedrone: still available and twice the price. *The Lancet*. 376 (9752), p1537.

Wood, D. M., Measham, F., & Dargan, P. I. (2012). 'Our favourite drug': Prevalence of use and preference for mephedrone in the London night-time economy 1 year after control. *Journal of Substance use*, 17(2), p91-97.

Wood, J (2013). Regional Mephedrone Update. South Wales: Regional Intelligence Unit Wales.

Youth Offending Service. (2013). Briefing Paper on Mephedrone use by young people known to the Youth Offending Service and living in Blaenau Gwent.

Appendix A: Mephedrone User Survey (adult)

Mephedrone and Violence in South Wales Study

My name is Dr. Fiona Brookman and I am conducting a study of Mephedrone use in the South Wales area. I would be very grateful if you would complete this short questionnaire about your use and experiences of taking Mephedrone. It should take around 5 minutes to complete and all responses are completely confidential.

If you would prefer instead to speak to me in person or over the telephone then please let the representative at the agency you visited today know and provide contact details at the end of the questionnaire. If you are happy to complete this questionnaire and also speak to me that would be great. Thank you for your time and insights.

1. Please can you state your age _____
2. What gender are you? (Please tick the box below)
 - a. Male
 - b. Female
3. What age were you when you first used Mephedrone? _____
4. Roughly how many times have you ever used Mephedrone? _____
5. What made you decide to try it the first time? _____
6. How often do you usually use Mephedrone? (Please Tick)
 - a. Daily
 - b. Every other day
 - c. Once a week
 - d. Every other week
 - e. Once a month
7. How do you usually take it? (Please tick)
 - a. Injecting
 - b. Snorting
 - c. Bombing
 - d. Swallowing
 - e. Other (Please state) _____

8. What other substances do you usually use whilst taking Mephedrone? (Please tick all that apply)

- | | | | |
|-------------|--------------------------|---------------------------------|--------------------------|
| a. Heroin | <input type="checkbox"/> | h. Tranquilizers/Benzodiazepine | <input type="checkbox"/> |
| b. Cocaine | <input type="checkbox"/> | i. Magic Mushrooms | <input type="checkbox"/> |
| c. Alcohol | <input type="checkbox"/> | j. Amphetamine | <input type="checkbox"/> |
| d. Cannabis | <input type="checkbox"/> | k. Methadone | <input type="checkbox"/> |
| e. Ketamine | <input type="checkbox"/> | l. None | <input type="checkbox"/> |
| f. Ecstasy | <input type="checkbox"/> | m. Other (please specify) _____ | |
| g. LSD | <input type="checkbox"/> | | |

9. Do you usually use any substances to help you to deal with the 'come down' from Mephedrone? If yes, please state which substances _____

10. How does taking Mephedrone make you feel (physically and emotionally)?

11. What are the good things about taking Mephedrone?

12. What are the bad things about taking Mephedrone?

13. Has Mephedrone ever made you **feel** aggressive? (Please tick)

- a. Yes
b. No

14. Has taking Mephedrone ever made you **act** in an aggressive or violent way? (Please tick)

- a. Yes
b. No

15. If yes, please describe the occasion when you acted aggressively or violently (i.e. without giving identifying details who (or what) did you threaten, hurt or damage, what were the triggers, what was the outcome etc?)

16. How do you usually purchase/get hold of Mephedrone? (Please tick)

- a. Friend
- b. Family
- c. Street dealer
- d. Internet
- e. Other If 'other' please elaborate _____

17. Have you ever tried to stop using Mephedrone?

- a. Yes
- b. No

If yes, please state **why** you tried to give up.

Please also state **how** you tried to stop (e.g. what did you do differently and/or where did you go for help)?

18. Would you currently like to stop using Mephedrone? (Please tick)

- a. Yes
- b. No

19. How do you think we can help people to stop using Mephedrone?

20. Would you be available to be interviewed by Fiona about your drug use either in person or over the telephone?

- c. Yes
- d. No

If yes please could you leave your telephone number or email address below or let the person at the agency you visited today know how I might contact you, or how you could contact me. For example, if you would prefer not to disclose your contact details then you could perhaps use the telephone at the agency to call me at some time in the near future.

Telephone: _____

Email: _____

Thank you again for taking the time to complete this questionnaire.

Appendix A: Mephedrone User Survey (young person)
Meow Meow and Violence in South Wales Study:

Young Persons Survey



Hello, my name is Fiona and I am a Criminologist from the University of South Wales in Pontypridd. I am doing some research to find out more about why young people take Meow Meow (also known as Mephedrone, M-Cat, Drone or white magic) and what some of the effects are upon behaviour. It has been suggested that Meow Meow can make some people become aggressive or violent and hurt themselves or other people. I am trying to find out if this really is the case.

If you have ever tried Meow Meow I would be very grateful if you could answer the questions below. Your views will help me to understand why young people decide to take this drug, the effects and how we might try to help young people to give it up if they wish to. It should take around 5 minutes to complete and all responses are completely confidential – that means no one will ever know that YOU gave these answers as I am not taking your name or any other identifying details. Thank you for your time and insights.

21. Please can you state your age _____

22. What gender are you? (Please tick the box below)

- a. Male
- b. Female

23. What age were you when you first tried Meow Meow? _____

24. Roughly how many times have you ever used Meow Meow? _____

25. What made you decide to try it the first time? _____

26. How often do (or did) you usually use Meow Meow? (Please Tick)

- a. Daily
- b. Every other day
- c. Once a week
- d. Every other week
- e. Once a month

27. How do (or did) you usually take it? (Please tick)

- a. Injecting
- b. Snorting
- c. Bombing
- d. Swallowing

e. Other (Please state) _____

28. What other drugs do (or did) you usually use whilst taking Meow Meow?

(Please tick all that apply)

- | | | | |
|-------------|--------------------------|---------------------------------|--------------------------|
| a. Heroin | <input type="checkbox"/> | h. Tranquilizers/Benzodiazepine | <input type="checkbox"/> |
| b. Cocaine | <input type="checkbox"/> | i. Magic Mushrooms | <input type="checkbox"/> |
| c. Alcohol | <input type="checkbox"/> | j. Amphetamine | <input type="checkbox"/> |
| d. Cannabis | <input type="checkbox"/> | k. Methadone | <input type="checkbox"/> |
| e. Ketamine | <input type="checkbox"/> | l. None | <input type="checkbox"/> |
| f. Ecstasy | <input type="checkbox"/> | m. Other (please specify) _____ | |
| g. LSD | <input type="checkbox"/> | | |

29. Do (or did) you usually use any drugs or substances to help you to deal with the 'come down' from Meow Meow? If yes, please state which substances _____

30. How does taking Meow Meow make you feel (think about how it makes your body and mind feel)?

31. What are the good things about taking Meow Meow?

32. What are the bad things about taking Meow Meow?

33. Has Meow Meow ever made you **feel** aggressive? (Please tick)

- a. Yes
b. No

34. Has taking Meow Meow ever made you **act** in an aggressive or violent way? (Please tick)

- a. Yes
b. No

35. If yes, please describe the time when you acted aggressively or violently. Without giving names or places please tell me who (or what) did you threaten, hurt or damage? What started you off? What happened in the end?

16. How do you usually get hold of Meow Meow? (Please tick)

- a. Friend
- b. Family
- c. Street dealer
- d. Internet
- e. Other If 'other' please elaborate _____

17. Have you ever tried to stop using Meow Meow?

- a. Yes
- b. No

If yes, please tell me **why** you tried to give up.

18. Please also tell me **how** you tried to stop (e.g. what did you do differently? Did you get any help to stop?)

19. If you are still using Meow Meow, would you like to stop? (Please tick)

- e. Yes
- f. No

20. How do you think we can help young people to stop using Meow Meow?

Please add any other comments below. Also, if you would like further information about the study please feel free to e-mail me at: **Fiona.brookman@southwales.ac.uk**

Thank you again for taking the time to complete this questionnaire.

Appendix B: Mephedrone User Interview Schedule

Mephedrone Interview Schedule

Mephedrone Users

Preamble: Purpose of the study and assurances of anonymity and confidentiality.

1. Age.
2. Gender.
3. How did you come into contact with this agency?
4. How long have you been coming here?
5. Mephedrone use:
 - How long have you been taking mephedrone?
 - On average, how often do/did you use mephedrone?
 - How do/did you usually take it?
 - How do you usually get hold of it? (Internet, street dealer?)
6. Other Drug use:
 - Had you used any other drugs prior to trying mephedrone? If so, what and how often?
 - Do you use any other drugs now? If so, what and how often?
7. Can you tell me how it makes you feel when you take mephedrone?
 - Probe physical and emotional feelings (positive and negative).
8. Has taking mephedrone ever caused you to harm yourself?
 - If yes, ask to elaborate with example(s) and gain a sense of how often this happens.
9. Has taking mephedrone ever caused you to harm someone else?
 - If yes, get a sense of how often this happens.
 - If no, still probe whether has ever caused feelings of aggression or desire to harm that were suppressed.
10. Thinking back to a time when using mephedrone caused you to become aggressive/violent/commit a violent crime, can you talk me through what happened?
 - Probe nature and levels of violence, the specific context and what led up to the event?

- Probe actual causal mechanisms (e.g. impaired judgment, more courageous, revenge, economic-compulsive etc).
11. Do you think that you would have acted violently on this occasion if you had not taken mephedrone?
 - Probe whether other factors (including other substances) played a role.
 - Probe whether anything else different about that day that contributed.
 12. Do you combine mephedrone use with other substances? If so, what, how often and why?
 - Probe how do you decide what drugs to take when and in what combinations?
 13. What would you say are the 'bad' things about mephedrone?
 14. Are there any good things about taking this drug?
 15. Is you have managed to stop taking this drug (now or in the past) how did you manage to do so and why did you decide to abstain/stop?
 16. What kind of reputational does mephedrone have amongst your friends/community?
 - Probe how this compares to other drugs.
 - Probe whether this affects drug use choice.
 17. Are you, or have you, dealt drugs? If so, elaborate? (may be a sensitive issue in which case bypass).
 18. Have you ever been arrested for an offence that you would link to mephedrone use?
 - If so, probe how many occasions and details of the offence(s) including CJ outcomes.
 19. Is there anything else that you can tell me about using mephedrone and the links to violence (to self or others)?
 20. Any other comments insights or questions?

Appendix C: 'Expert' Practitioner Interview Schedule

Mephedrone Interview Schedule

Practitioners (who work with users)

1. Agency and its remit.
2. Role within the agency.
3. Time in role and other relevant experience.
4. In what capacity do you work with mephedrone users?
5. Approximately what percentage of your clients are mephedrone users and/or dealers?
6. What is the age range and average age of your clients?
7. Approximately what percentage of your clients use other substances? (elaborate).
8. Mephedrone and other drugs:
 - a. Do most of the mephedrone users that you work with combine it with the use of other drugs?
 - b. Has mephedrone use replaced other drug use (such as heroin) amongst those with whom you have contact?
9. How many mephedrone users/dealers have you had direct contact with in the last 12 months?
10. Have you seen a rise or fall in the last 6 months, 12 months, other time scale?
11. Is there a link between mephedrone use and involvement in crime (of any kind)?
12. I'm particularly interested in the possible links between mephedrone use and violence. Do you have any direct experience within this agency of a client acting aggressively or violently as a direct result of mephedrone use? Please tell me about this event in detail:
 - a. Probe the nature and levels of violence, the specific context, what led up to the event and outcome.
 - b. Probe causal mechanisms: mephedrone → violence.
 - c. Probe why they believe there to be a link between mephedrone use and violence.
 - d. Probe possible role of other substances.

13. If you have no direct experience, do you have indirect knowledge from other staff at this agency or from clients who have reported incidents to you? Can you tell me about one such example (probe as above)?
14. Do you have any knowledge of violence associated with the dealing of this drug?
15. I'm also interested in any links between mephedrone use and intentional self-harm. Are you aware of any clients who have harmed themselves whilst under the influence of mephedrone? Please can you tell me about this?
16. If you had to summarize the three most significant harms associated with mephedrone use what would they be?
17. Reputation of the drug (amongst users, amongst you and your staff)?
18. How, specifically, are your agency working to tackle the problems associated with this drug?
19. Do you have any recommendations for ways to try to tackle the use of this drug and the problems associated with it?
20. Do you have any additional comments or insights?