

# **Forensic patients' experiences of Synthetic Cannabinoid Receptor Agonists (SCRAs) within custodial settings.**

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## Abstract

There has been an enormous growth in New Psychoactive Substances (NPS), sometimes erroneously referred to as ‘legal highs’, over the past fifteen years. There are currently at least 800 such compounds, and we lack adequate data on all their effects and harms. Synthetic cannabinoid receptor agonists (SCRAs), often referred to by the generic name ‘spice’, are particularly notable in this regard.

There has been a lack of research on forensic patients’ experiences of SCRAs, their consumption, and any adverse impact they might have. This work qualitatively explored the experience of NPS and SCRA use in 19 male patients recruited from three secure forensic services in the South of England.

The majority of participants discussed experiences of using SCRAs whilst in prison as opposed to their current forensic hospital admission. Three key themes emerged which describe participants experiences of SCRA use: (i) *perpetuating cycle of drug use, mental ill-health, and crime*; (ii) *environmental injustices and consequences*; and (iii) *shame and stigma associated with SCRA use*.

The findings provide insights into the challenges faced by forensic patients as a result of SCRA use, as well as notable opportunities. A common call was for greater psychoeducation on drug harms and treatment opportunities.

**Keywords:** *Synthetic Cannabinoid Receptor Agonists (SCRA); New Psychoactive Substances (NPS); Forensic Mental Health; Prison; Substance Use.*

## Introduction

A surge in numbers and supply of New Psychoactive Substances (NPS) over the past decade (Duke, 2019), in the United Kingdom (UK) and internationally, has created a serious challenge to public health, and highlighted potential gaps in information provision to drug consumers, professionals, and drug policy legislation and enforcement (Corazza & Roman-Urrestarazu, 2018). There is no universally agreed method to categorise NPS. One way to conceptualise the many hundreds of NPS is to divide them into four broad categories based on their functionality (although each can contain up to several hundred novel compounds): stimulants including Benzo Fury); hallucinogens (including psychedelics and dissociatives); depressants (including benzodiazepines and opioids); and cannabinoids (scientifically known as Synthetic Cannabinoid Receptor Agonists (SCRAs) but often colloquially grouped under the generic name of ‘spice’) (Tracy et al., 2017; Shafi et al., 2020).

In recent years, NPS use has remained relatively low, with around 0.5 per cent of adults aged 16 to 59 in England and Wales reported to use these (Home Office, 2018/2019). Nevertheless, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) reported that NPSs are increasingly being linked to health emergencies and drug-induced deaths (EMCDDA, 2018). It has become clear from the literature that NPS use, specifically SCRAs, is elevated in populations that experience social deprivation and disadvantage (Duke, 2019; Lloyd et al., 2019). SCRA consumption is common in forensic settings, including forensic mental health services and prisons, partly because of their low cost and detectability (Norman et al., 2021).

Delta-9-Tetrahydrocannabinoid (THC) is the major psychoactive component found in ‘traditional’ cannabis, where it partially binds to the brain’s endogenous cannabinoid receptors that ordinarily have homeostatic roles (Every-Palmer, 2011). SCRAs also bind to these cannabinoid receptors, but typically more fully and potently than THC, often producing a different and far stronger effect that can include significant agitation and psychosis (Tracy et

al., 2017). Whilst this strength – which varies between the many SCRA<sub>s</sub> – puts many people off their use, the aforementioned issues of lower cost and detectability mean they often retain popularity in forensic populations (Duke, 2019).

Recent estimates suggest that between 33% and 90% of people in UK prisons regularly use SCRA<sub>s</sub> (Ministry of Justice and Safety in Custody Statistics, England and Wales, 2019; Corazza et al., 2020). Illicit drug consumption is more prevalent in those with mental health issues than the general population (Toftdahl et al., 2016), and high rates of mental disorder and comorbidity are found in prison populations (Tyler et al., 2019). High prevalence of SCRA use in custodial settings is known to adversely impact on mental health (Gray et al., 2016). The use of SCRA<sub>s</sub> has risen in UK prisons in parallel with a rise in the number of deaths in custody (286 between March 2019 and March 2020), self-harm incidents (63,328 December 2018 to December 2019), and assaults (32,669 December 2018 to December 2019) (Ministry of Justice and Safety in Custody Statistics, England and Wales, 2019). However, any causal relationship, and its putative direction, between SCRA use and such outcomes remains speculative at this time.

Transfers from prison represent two thirds of all admissions to secure services in England and Wales (Ministry of Justice, 2021). Therefore, trends in substance use within prison are likely to translate to secure forensic services. However, while there has been a recent increase in research examining NPS and SCRA<sub>s</sub> use among offending populations (Corazza et al., 2020), research has not focused on the experiences of SCRA use in patients detained within low or medium secure forensic services. However, secure forensic services, which assess and treat people detained under the Mental Health Act (1983), have also seen a rise in SCRA use (Public Health England, 2017; McKenzie & Harvey, 2019); with a survey of UK secure services reporting that 12.07% ( $n = 218$ ) of patients were known to have been using SCRA<sub>s</sub> at the time

of admission (Public Health England, 2017). This increase in SCRA use has been associated with an increase in the severity and number of violent incidents (Stevenson & Tuddenham, 2014), adverse patient mental health outcomes (Gray et al., 2016), and reduced staff wellbeing (Hughes et al., 2018; McKenzie & Harvey, 2019); highlighting the significant impact SCRA use has for secure forensic services.

This study aimed to address this gap in the literature by qualitatively exploring the lived experiences of male forensic patients of using SCRA's and to consider any relationship between SCRA's, mental health, risk, and offending.

## **Method**

### *Participants*

Participants were recruited from three NHS secure inpatient forensic hospitals in the South of England (one low secure, two medium secure). These sites were chosen as the research team had substantive contracts within the NHS trusts that provide care to these sites. Four sites were originally identified for recruitment; however, a sufficient sample size was reached by the third site, therefore the fourth site (low secure) was not required. For inclusion in this study participants were required to: (1) be aged 18 years or above, (2) male, (3) currently detained in either a low ( $N=3$ ) or medium secure forensic hospital ( $N=18$ )<sup>1</sup>, and (4) have lived experience with SCRA's. Twenty-two participants were eligible to participate in the research and consented to interview. One interview was removed due to the participant discussing an illicit substance which was not an SCRA.

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<sup>1</sup> Secure hospitals which treat patients who are considered a serious risk to themselves or others, often with the addition of a conviction for a criminal offence.

### *Procedure*

Following initial email contact, posters describing and advertising the research were initially displayed on the hospital wards prior to the researcher's visit. The researcher was also invited to ward based meetings to introduce the study to patients and staff. Staff identified any patients not suitable for inclusion, which was usually due to clinical concerns about risk. The researcher then approached all remaining patients individually, to inform them about the study, reading the information sheet to them. As data on NPS use is not routinely collected within these establishments it was unknown who met the eligibility criteria and who did not, therefore all patients were approached. In total there were 109 male patients detained across the three participating hospitals at the time of recruitment, 28 of these were removed due to risk concerns, language barriers, or unavailability at the time of recruitment. Fifty-nine declined due to no experience with NPS or not wanting to take part in the study. Potential participants who expressed an interest in the research, were offered an invitation letter, a future appointment date (no less than 24 hours after the initial recruitment date) and given a copy of the participant information sheet. Suitability (due to risk or any other relevant issues) was then clarified with the multi-disciplinary team and confirmations of appointments were communicated to ward staff.

Participants provided informed consent on the appointment day, prior to participation. Once informed consent was obtained, a face-to-face semi-structured interview was conducted in a designated room within the ward where the participant resided. Interviews were conducted by the first author (GR), between February and June 2018. The interview schedule asked open-ended questions about NPS use, effects of NPS on mental/ physical health, offending behaviour, and NPS education and treatment programmes (See Appendix 1). The interview

schedule was informed by a review of the available literature, discussions with the research team, and consultation with a qualitative researcher. Interviews were recorded using an encrypted audio recorder.

## [Appendix 1]

### *Analysis*

Interviews were transcribed verbatim and analysed using Braun and Clarke's (2006) reflexive thematic analysis, a method for identifying, analysing, and interpreting patterns of meaning (*themes*) within qualitative data. Reflexive thematic analysis was used due to its focus on experiences in context; enabling us to explore participants' experiences of SCRA use within the context of their detention in forensic services (Braun & Clarke, 2019). Analysis was undertaken using an inductive, realist, and semantic approach as we wanted to describe participants' experiences from their own lived reality. Reflexive thematic analysis follows six steps: (1) Familiarising oneself with the data (2) Generating initial codes (3) Developing themes (4) Reviewing themes (5) Defining and naming themes (6) Producing the report.

Data were stored on a secure device and NVivo Version 12 (QSR International, 2018) was used for analysis. Interviews were read multiple times before analysis and a coding agreement was established through the second author independently coding twelve of the interviews. The first and second author discussed the interviews in detail on several occasions, this led to theme restructure and refinement. The first and second authors then discussed the themes with the remaining authors to consider different perspectives and ensure the themes reflected the data; further refinements to the themes were made following this.

### *Reflexivity*

The research team consists of four white females and one white male from academic and clinical backgrounds. Two members of the team have experience working within forensic mental health and prison settings and have experience in delivering substance use treatment programmes with individuals who have offended; one team member brings clinical expertise in illicit substance use. We recognise our characteristics are a source of power and privilege compared to the participants who are significantly more marginalised and disadvantaged. The first author's experience of conducting research in prisons inspired this study and therefore it is acknowledged that this study is viewed through the lens of working in the Criminal Justice System as opposed to lived experience of detention within the Criminal Justice System.

As a group, we have made some considerable changes to the interpretation of the data through our conversations, writing and from reviewing the drafts of this paper. For example, thinking about the overlap and distinctiveness of themes and what they are communicating, how true the theme names and descriptions were to the raw data (e.g., quotes) and how this was interpreted in the discussion – the proposing of different perspectives on these points is one way of triangulating thinking and thinking about how our previous assumptions and experiences might influence analysis.

### *Ethics*

The study received ethical approval from University College London Research Ethics Committee (Ref: 17/0558) and NHS Health Research Authority (REC ref: 17/WA/0423).



## Results

### *Demographics*

Participants' ages ranged from 23 to 52 years. All participants were male ( $N=21$ ). The majority identified as being of white ethnicity (57%) and reported a diagnosis of schizophrenia. Participants were detained for a range of offences including acquisitive, sexual, and violent offences. Nearly all participants reported to have regularly smoked cannabis prior to their detention ( $N=19$ ) and all had experience of using NPS or SCRA either in the community or when detained in prison. The mean interview time was 23 minutes, the range was eight to 45 minutes.

Three main themes were developed from the data: (i) *Perpetuating cycle of drug use, mental health, and crime* (ii) *Environmental injustices and consequences* (iii) *Shame and stigma of being an SCRA user*. An overview of the themes and corresponding subthemes can be seen in Table 1.

Although this study focuses on forensic patients' experiences of NPS, the majority of participants solely discussed their experiences of using SCRA during the context of their prison detention, rather than their current forensic hospital admission as this is where the majority of participants had experiences with SCRA. Further, it is possible that participants would be unlikely to disclose any SCRA experiences they may have had during their current hospital detention as any disclosures of this kind would result in the researcher reporting this to staff which was communicated to participants at the time of recruitment and consent. Disclosure of use in the hospital setting could potentially lead to increased monitoring for the participant. This direction became clear during data collection, therefore, this data predominantly describes the use of SCRA in prison.

## **Theme 1 - Perpetuating cycle of drug use, mental health, and crime**

This theme describes the motivations driving SCRA consumption (smoking) and the cycle which maintains repeated use of SCRAs within the Criminal Justice System. It highlights a complex relationship between SCRA use, mental health, addiction, and intentional and coerced criminality. Three subthemes were developed which were named *motivation and access*, *impact on mental wellbeing and addiction*, and the *drug crime cycle*.

### **Sub-theme 1.1 – Motivation and access**

By far the most commonly used NPS by participants was SCRAs (the generic term ‘spice’ was usually used). The majority of participants reported their first experience of using SCRAs occurred upon detention in prison, often through the induction wing (the first place a prisoner will stay when detained within a prison before relocation to a more permanent wing location). Participants reported that prisons provided a ‘smokers pack’ to new inmates (interviews were conducted prior to the national HMP smoking ban) which was seen as an item of value and that they were quickly offered SCRAs by others in prison in exchange for tobacco.

All but three participants identified as being regular cannabis consumers prior to using SCRAs. Participants reported that the challenges associated with sourcing cannabis and other ‘more traditional’ illicit substances in custody were a factor that shifted them from cannabis towards SCRA use: *“There’s no weed about and I wanted something to smoke. This was my replacement weed”* (B3).

Participants recognised their preference for cannabis and reported that given the choice they would opt for this over SCRAs. However, within the prison environment this was not an option

due to difficulty in accessing cannabis. In addition, SCRAAs were reported as being “*cheaper than weed*” (T7), and difficult to detect through the mandatory drug testing that is regularly carried out in forensic settings, therefore enabling substance use to go undetected and evading punishment:

*“I know weed can definitely be detected so I didn’t want to smoke it, because I didn’t want to lose the job I had”* (B6), [prisoners are offered internal employment opportunities e.g. wing cleaner, they are paid a small amount of money for this work].

Participants reported a significant lack of access to meaningful activities whilst detained in custody and described this as another factor which influenced their decision to use SCRAAs: *“You’re doing 23 hours in your cell a day so you need something, you can’t do that kind of thing, it would do something to you psychologically without drugs”* (T4).

Participants detailed difficulties with coming to terms with the reality of time spent detained and described SCRAAs as helping to eradicate time in prison - *“a perfect bird killer”* (B5) - which was perceived to pass slowly.

*“Spice helps in jail... they’ll smoke and their sentence will go like that... people do it in jail because it’s cheap, easy to get and a way out, you’re in some next world... you’re doing your punishment but to smoke spice in jail you’ll forget everything. They don’t even think they’re in jail they think they’re on some next planet or in hell”* (B1).

### **Sub-theme 1.2 - Impact on mental wellbeing and addiction**

Consuming SCRAAs was perceived as providing a way for participants to escape their reality, and forget their past, something which was often described as difficult and challenging. SCRAAs were seen by some as a form of self-medication, temporarily numbing difficult memories and,

for some, even as an antidote to mental health symptoms: *“I guess the motivation was to help my anxiety and to battle psychosis”* (T9).

However, SCRAAs were more commonly perceived as a trigger for mental health difficulties and for some, it was perceived as the trigger for their current hospital admission.

Participants described experiences they had whilst using SCRAAs that resulted in severe harm to themselves and risk to others:

*“I was convinced I was doing voodoo, I was washing myself in my urine... I would come out of my cell naked... I wouldn't wear clothes...I knew what I was doing but I didn't have control...I opened my chest up...I just sliced all my chest open and it was deep...it was down near to my ribcage...I was doing crazy things like walking around with big knives, robbing drug dealers on the wing, just getting involved in fuckerys”* (B5).

Common SCRA-related experiences described by nearly all the participants included feelings of paranoia, *“getting very fucking hooked”* (A3), and *“it brainwashing you”* (T10). Although negative experiences associated with SCRA use were reported as being felt immediately (i.e., from first use) the highly addictive nature of these was described as rapidly developing into daily consumption and addiction: *“The first spliff I smoked... I put a little piece in... I woke up on the floor in my cell and I was in a bad way, then after that I was smoking loads”* (B5).

The addictive nature of SCRAAs was reported to result in financial burden for participants, with some burdening interpersonal sources of support for financial maintenance to fund their addiction. Those that could not afford to fund their addiction ended up in debt which could have serious negative consequences including being on the receiving end of violence. These individuals were considered particularly vulnerable within the prison environment:

*“In prison some people just give away their stuff so they can have spice and get into debt...it's the worst thing that can happen to someone in prison, getting into debt for your*

*addiction... I've seen people get beat up, hot water chucked over them with salt and sugar, irons put on their things. Pretty bad” (T7).*

### **Sub-theme 1.3 – Drug crime cycle**

SCRAs were perceived as driving some individuals to commit crime in order to fund their drug use: *“people who wouldn't normally rob were robbing people”* (B4) and getting *“nicked”* [subject to penalties] (B3) if they were caught with drugs in their possession.

However, in contrast, some participants recalled witnessing individuals ‘high’ on SCRAs being subjected to victimisation and harm:

*“They have camera phones in jail and take footage of spice rats... they say ok I'm going to record you whilst I smack you in the face, they'd say what are we recording for today and they'd be like for a spice spliff. Then they'll say what are we going to do for a spliff? To which they reply get a punch in the head and then they'll punch them for entertainment”* (B1).

However, despite the various negative accounts of experiences of use of SCRAs, for some it also *“make them feel good”* (A3), keeping them in this perpetual cycle.

## **Theme 2 – Environmental consequences and injustices**

This theme captures participants' experiences of SCRAs within the prison environment and how, by default, experiences with SCRAs in prison made individuals vulnerable to often severe consequences such as exploitation from others and social injustice. Two subthemes were generated: *effects on prison safety and security* and *increasing vulnerability of those in prison*.

### **Sub theme 2.1 - Effects on prison safety and security**

The introduction of SCRAAs were reported by participants to have had a significant and negative effects on both prison safety and security. Participants commented on the high quantity of SCRAAs being trafficked into prison and the extreme measures people would take to smuggle SCRAAs into the prison system. The profitability of trafficking SCRAAs into prison was perceived to drive this:

*“I know people that get locked up just to sell drugs because they’ll earn more money in prison than out of prison...Every night I heard them chucking parcels over the wall...prison officers are bringing stuff in” (T5).*

Participants acknowledged the impact SCRAAs had on both staff and peers, creating an environment which festered fear, paranoia, unpredictability, trauma, and harm to self and others: *“Spice is flooded in jails now, even screws are getting high off the fumes and passing out” (B1).* *“I’ve seen people cutting themselves... smearing the walls. Spice hurts people. It’s a killer” (T7).*

Those who had been in prison on more than one occasion, reflected upon how things have changed over recent years, describing it as being *“a jungle in there now”* and *“a pure mad house”* (T2). These changes in the environment were accredited to the introduction of SCRAAs into the prison system.

### **Sub-theme 2.2 – Increasing vulnerability of those in prison**

For most, prison was seen as an environment that increased an individual’s vulnerability. Some participants believed that authorities placing people within the prison system should take into consideration the severity of the crime and the cost/benefit of exposing them to a volatile

environment where SCRAs are present and potentially increased risks including recidivism: “A lot of people are in prison for minor stuff and you see them leaving as one of them” [spice user] (B5).

Participants held a common perception that you need to be “*mentally strong enough*” (B1) to be able to survive SCRA use, and those that were not were “*spice rats*” (B1) and would experience critical situations. Vulnerability to SCRA use was perceived to be exacerbated by a lack of opportunity and support both within and upon release from prison. The need for appropriate accommodation and employment opportunities was emphasised as critical to reducing continued SCRA use: “*When you come out of jail you’ve got nothing. If you’ve got nowhere to live and you can get spice on road the habit is going to continue badly*” (B1).

### **Theme 3 – Shame and stigma associated with SCRA use**

This theme describes the psychological conflict reported by participants when discussing their experiences with SCRAs. This commonly manifested as minimisation of one’s own SCRA use and motivation to use while stigmatising others. Two subthemes were captured within this theme which were termed *stigma of being an SCRA user* and *belief education would have prevented use*.

#### **Sub-theme 3.1 – Stigma of being an SCRA user**

Participants frequently described a stigmatised perception of SCRAs users despite being consumers themselves. SCRAs were very much perceived as substances that could only be used in prison: “*If I was on road I wouldn’t smoke it*” (T1) and that use in the community would be frowned upon: “*my people would be looking at me like are you on the gram*” (B1).

Despite widely acknowledging their own SCRA use, participants often talked in the third person and externalised blame, “*they are weak minded people*” (B3), minimising their relationship with SCRAs and distancing themselves from these, “*I wasn’t a spice rat*” (B1). Minimisation of SCRA use and behaviour associated with these was also common: “*I just had to have it every day... there was nothing wrong with me, I wasn’t getting funny*” (B3).

More generally, SCRAs were seen as a “*degrading drug*” (T05), “*a poor man’s crack*” (T2), emphasising the negative view participants had of SCRAs, despite having used these themselves, as well as the adverse behavioural and financial impacts associated with SCRA use, and how participants perceived these were viewed by society.

The stigma associated with SCRA use and its highly addictive nature created an internal conflict for participants, knowing SCRA consumption had many negative consequences but still continuing to use these: “*it’s weird because this thing harms you and you want more*” (B3). This combination of stigma and addiction could potentially represent a barrier for support-seeking for those who want to cease using SCRAs.

### **Sub-theme 3.2 – Belief education would have prevented use**

There was a consensus amongst participants that SCRAs had significant negative impacts on their lives (e.g., “*[they] ruined my life*” (T3)) and a sense of regret, reflected in the belief that had they been aware of the potential effects and/or consequences of using SCRAs they wouldn’t have tried them in the first place: “*If I knew that use would of resulted in these hospital admissions I probably wouldn’t of done it*” (B2).

Participants typically reported using SCRAs without any knowledge of what they were, what they were made of, their effects, or the long term consequences suggesting poor substance awareness.



Participants perceived SCRA's were "*targeted at the prison environment*" (T11) and those living within these settings. Participants reported that if there was "*more education*" (T7) and information available that they would have been in a better position to make a more informed choice about whether to use SCRA's or not. It was caveated that such might optimally "*come from people that have done drugs and recovered... rather than someone who's never done a substance talking about it. It makes it more relevant, its more realistic*" (T9). Suggesting participant substance knowledge and awareness is poor and more needs to be done to address this.

## **Discussion**

This study is the first study to explore forensic patients' experiences of NPS and SCRA use, focusing on the impact of addiction, mental health, and risk. The 21 participants who took part in this qualitative study gave detailed accounts of their experiences raising significantly important issues related to SCRA's and the Criminal Justice System. Their accounts highlight the proximal (e.g. stress, addiction) and distal (e.g. poor impulse control, poor distress tolerance) correlates of SCRA use, the perils of prison life and the challenges faced by the Criminal Justice and forensic mental health systems. This echoes some issues reported by other researchers in prison settings (Corazza et al., 2020; Duke, 2020), but also highlights novel prevention and intervention opportunities that healthcare environments are well placed to provide.

It is important to recognise the triadic relationship exposed within these findings between cannabis, SCRA's and forensic environments. Nearly all participants identified as erstwhile cannabis users, and all identified as regularly using at least one type of illicit substance prior to conviction. There is an established link between cannabis use and psychiatric conditions

(Murray et al., 2007). Research continues to emerge on specific psychiatric risks associated with SCRA; although not necessarily the same as those with cannabis use in nature or degree, available data on the topic show comparable types of risks, such as psychosis. Substance misuse amongst psychiatric patients more generally is a predictor of increased violence and offence related behaviour (Soyka, 2000), and further, those with mental health difficulties are more likely to use substances as a maladaptive coping strategy when compared to the general population (User Voice, 2016). However, there has been a lack of work specifically on forensic populations (where these factors have historically been shown to be higher), and coping mechanisms (adaptive or otherwise).

Similar to previous studies, prior relationships with cannabis was a significant motivation for participants to use SCRA in conjunction with availability, cost, difficult to detect in mandatory drugs testing, and ease of access; (User Voice, 2016; Ralphs et al., 2017; Kalk et al., 2016; Every-Palmer, 2011). This raises concerns not only for the effectiveness of forensic security systems, but also speaks to the vulnerability of those entering the Criminal Justice System and the impact this has on mental health, social care, and rates of recidivism, highlighting the need for early societal interventions that target macro level stresses and view these issues through the lens of a wider cultural context.

Lack of access to meaningful activities and purposeful and effective rehabilitation whilst detained created the need for participants to “kill time”. SCRA are often seen as, colloquially named, “bird killers” (Duke, 2020), symbolically suspending time rather than acknowledging the impact of sentencing (Cope, 2003). This relationship is contextualised within our analysis as a survival response to trauma through disassociating from a position of extreme vulnerability in a turbulent and unpredictable environment characterised by violence, and significant staffing shortages (Howard League, 2018; User Voice, 2016).

A novel finding was that participants associated SCRA use with mental health deterioration, and the majority to their current detention within a secure forensic hospital. Participants consistently reported experiences of a cycle to SCRA use – an initial ‘high’, followed by experiences filled with negative connotations which then led them back to seeking out more SCRA; themes of addiction are in line with Corazza et al.’s 2020 study in custodial settings. The cognitive dissonance and narratives of stigma associated with SCRA use whereby participants minimised their own consumption whilst stigmatising others were also highlighted. SCRA were described as a “poor man’s drug”. Individuals who perceive high levels of stigma have been found to strive to adjust their perceived identity and to gain a new social identity which offers acceptance (Goffman, 1974). This stigma may also represent a barrier to treatment and support seeking for those who wish to cease SCRA use. However, a potential contrast or opportunity to Corazza et al. is the generally greater provision of psychological input in forensic units when compared with custodial settings. To our knowledge, there are not well-established psychological protocols or interventions in either prisons or forensic services to explore these issues of cognitive dissonance and stigma in terms of NPS, though of course the broader principles will be familiar to practitioner psychologists more broadly. Our findings suggest a therapeutic opportunity that future work might meaningfully explore.

This research also sheds light on wider societal issues in that the lack of access to supportive community-based services appears to be a partial driving force in the supply of SCRA in the UK Criminal Justice System. Some participants reported SCRA distributors purposely got arrested in the community for minor offenses in order to serve time in prisons where they are able to earn significantly more selling SCRA than they are in the community, in line with Hagan and Hardwick (2017) findings. Participants also put forward a point for debate of the cost versus benefit of short sentences for minor offences on vulnerable individuals, arguing

that given the more recent volatility of prison environment (which they argued were correlated with SCRA consumption, staff shortages overcrowding and lack of rehabilitation), vulnerable individuals (particularly those with mental health issues) are at increased risk of entering into a perpetuating cycle of drug use, mental health issues and recidivism. Our findings resonate with more general findings on drug use that suggest NPS, and SCRA in forensic units and prison settings present a new critical factor in this risk matrix (Hagan, 2017; Pickard and Fazel, 2013).

Several participants provided narratives which offered anecdotal evidence of how the most vulnerable were subjected to significant harms associated with SCRA use. This suggests an urgent need to protect those most vulnerable within prison from victimisation, exploitation, and increased risk of forensic hospital admission.

A further key finding was that participants' described lack of knowledge about the effects and harms of SCRA and that more could be done to address this issue. This has been reported previously in prison populations, such as User Voice's (2016) report and Ralphs et al (2017). Interestingly, in our work, one might suppose that healthcare settings would be better equipped to provide psychoeducation and liaison with drug services. Our participants reflected that had they more extensive prior knowledge of SCRA they would have been in a position to make an informed choice which may have deterred them from use. They recognised the impact peer relations have on influencing behaviour and suggested interventions be peer led rather than professional led, with a motivation to learn from the experiences of others and this is an important point to hold in mind when planning future services that are effective in prevention and harm minimisation. Many prisons and forensic psychiatric units provide substance use treatment services and, forensic psychiatric services in particular, have group and peer-support as part of their psychoeducational remit. Providing education about the use and effects of NPS and SCRA use early in an individual care or sentence pathway may be one preventative

measure through which substance use knowledge and awareness could be increased amongst justice involved individuals. Group and peer support may be an effective way to engage the individuals in forensic services with the drug harms related to NPS use.

We propose that there are some direct actions that local units and teams might implement based upon our findings, and in conjunction with parallel work on NPS use in prison (Public Health England, 2015) and supervised offender populations (Lloyd, Perry & Grace, 2018).

1. There is a clear call for more information and education on NPS for justice involved individuals, and we believe that staff will equally benefit from such work. Local drug services or practitioners might be invited to engage in a number of ways, from workshops through lectures to safe-spaces to discuss concerns and any locally specific issues. Issues that might be addressed include drug types, harms, clinical management, and legal issues. Accurate, up-to-date and easy to read information should be available across forensic settings. Such efforts are likely to need to be recurring on an intermittent basis.
2. Better recognition and discussion by clinicians and patients on the interplay and often circular relationship between mental illness, drug consumption, and risks and vulnerabilities. Interventions specially designed for forensic patients that address the relationship between mental illness and substance use have shown promising outcomes (e.g., McFadden, Prior, & Barrett, 2020; Miles et al., 2007, Miles, 2015). However, this might be further encapsulated in co-designed care plans shared with the patient and support services and networks.
3. Better local recognition about how a lack of meaningful activities can precipitate and perpetuate drug consumption within forensic settings and consideration given to developing occupational therapeutic offerings with particular consideration to appropriately individualizing care plans.

4. In the UK, there is a general trend towards reduction of specialist drug services. However, relevant units might wish to consider appropriate in-house training of a drugs lead who can support patients and staff, and better network with community and external resources to ensure successful transition between prison and/or hospital and the community.
5. More broadly, there is a greater need for research and evaluation of interventions that can help with harm reduction in these vulnerable cohorts.

There are several limitations to the study. We recruited a relatively homogeneous sample of male participants with serious and enduring mental illness, and with significant risk profiles requiring intensive supervision within either a low or medium secure forensic hospital. Thus, it is important to also explore the experiences of groups not represented in this study. There may also be a sampling bias towards patients who were most able to discuss their experiences. Secondly, although this study aimed to examine forensic patients experiences of NPS use all participants discussed the use of SCRAs whilst in prison, with none reporting NPS or SCRA use in secure hospitals. Therefore, further research is needed to understand NPS use in the secure hospital environment. More recently, there have been discussions about how the COVID-19 pandemic has altered drug consumption, including NPS, from disruption of traditional supply routes, to a rise in online purchasing (United Nations Office on Drug and Crime, 2021). Some parallel anecdotal data are emerging from psychiatric services, though it is yet to be seen if these are significant longer-term changes.

A strength of the study is its qualitative nature by which the voices of forensic patients can be heard and represents, to our knowledge, the first study to explore the narratives of forensic patients' experiences with SCRAs, an area that is under researched.

### *Conclusion*

This study allows an insight into the experiences of offenders with mental health issues. Some of our findings may be used to inform future custodial, mental health and social care responses to SCRAAs. For example, by ensuring more adequate custodial funding to address staffing and security challenges within the Criminal Justice System, expanding rehabilitation opportunities, reforming educational resources in collaboration with experts by experience, and establishing trauma informed environments. More widely there is a need for macro level early years education which encourages prevention and harm minimisation through a collaborative multi agency approach. We also believe that our data show that there are direct opportunities for services and teams to instigate locally meaningful psychoeducational work with patients that offer opportunities for reduced harm and better clinical outcomes.

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**Appendix 1: Interview schedule (prompts in italics).**

<p><b>1) Can you tell me about your understanding of what Novel Psychoactive Substances are and the effects they have on users?</b></p> <ul style="list-style-type: none"><li>○ <i>Definition</i></li><li>○ <i>Pharmacology</i></li><li>○ <i>Thoughts, feelings, behaviours when using NPS</i></li><li>○ <i>Associated risks</i></li></ul>
<p><b>2) Can you explain how NPS differ to recreational drugs?</b></p> <ul style="list-style-type: none"><li>○ <i>Population that use</i></li></ul>
<p><b>3) Can you describe how people behave when using NPS?</b></p> <ul style="list-style-type: none"><li>○ <i>Characteristics</i></li><li>○ <i>Does this change over time?</i></li><li>○ <i>Increased tolerance</i></li><li>○ <i>Vulnerability</i></li><li>○ <i>Exploitation</i></li><li>○ <i>Manipulation</i></li></ul>
<p><b>4) Can you describe any experiences you've had with NPS?</b></p>
<p><b>5) How do you think the availability of NPS fares when compared with recreational drugs?</b></p> <ul style="list-style-type: none"><li>○ <i>Where can you access NPS?</i></li><li>○ <i>Is there a difference between street access and prison access?</i></li><li>○ <i>Cost?</i></li></ul>
<p><b>6) Do you think there is a relationship between NPS use and mental health deterioration?</b></p> <ul style="list-style-type: none"><li>○ <i>Are there long term consequences from NPS use?</i></li><li>○ <i>Why do some people experience difficulties when using NPS and not others?</i></li><li>○ <i>Do different sub types of NPS have different effects?</i></li></ul>
<p><b>7) Do you think there is a relationship between NPS use and physical health issues?</b></p> <ul style="list-style-type: none"><li>○ <i>Are there long term consequences from NPS use?</i></li><li>○ <i>Is there an increase in harm to self when using NPS?</i></li></ul>
<p><b>8) Do you believe there is a relationship between NPS use and offending behaviour?</b></p> <ul style="list-style-type: none"><li>○ <i>Increased risky behaviour?</i></li><li>○ <i>Increased anti-social behaviour?</i></li><li>○ <i>Convictions?</i></li></ul>
<p><b>9) What are your thoughts on current approaches to NPS?</b></p> <ul style="list-style-type: none"><li>○ <i>Education</i></li><li>○ <i>Legislation</i></li><li>○ <i>Treatment programmes/ specialist services</i></li></ul>