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RESEARCH ARTICLE

Experience and views of healthcare professionals towards people who use new psychoactive substances: Evidence from statutory, non-statutory, and private mental health and addiction healthcare services

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Abstract

Objective: It is unclear how healthcare professionals (HCPs) experience and view the challenges of working with people who use New Psychoactive Substances (PWUNPS), in different healthcare services (HCS). The aim of the study was to explore HCPs' experiences of working with individuals who use NPS across statutory, non-statutory, and private mental health and addiction HCSs.

Methods: HCPs completed in-depth semi-structured interviews. Audio recordings were transcribed verbatim with a mean duration of 30 min 55 s. Data were analysed through thematic analysis.

Results: A purposive sample of 14 HCPs (6 men, 8 women) with a mean age of 42.5 years were interviewed in 2019. Organisational issues, including funding, impacted the treatment for PWUNPS and HCPs perceived a lack of support dependent on their qualifications. They reported a lack of assessment, policy, harm reduction, and awareness of NPS-related symptoms including mental health problems and stigma faced by PWUNPS.

Conclusion: HCPs need better training, education, and assessment processes to manage acute NPS intoxications and address the stigma associated with PWUNPS. There is a need for policy-making opportunities across different HCSs to ensure better healthcare outcomes for PWUNPS.

KEYWORDS
experiences, healthcare professionals, healthcare services, new psychoactive substances, views

1 | INTRODUCTION

Healthcare services (HCSs) in different sectors need to understand how healthcare professionals (HCPs) experience and view people who use new psychoactive substances (PWUNPS). Firstly, it is unclear how HCPs assess, treat, and manage PWUNPS who present to different HCS (Healthcare Services) types. Notoriously, NPSs (New Psychoactive Substances) are characterised by the modification of molecular compounds that mimic traditional drug use and cause harm to both physical and mental health, thus, posing challenges for HCPs

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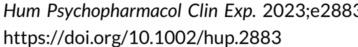

(Chiappini et al., 2021; Corkery et al., 2018; EMCDDA, 2022; United Nations Office on Drugs and Crime, 2022; Zamengo et al., 2019). Consequently, PWUNPS are at an increased risk of toxicity, overdose, and death. Similarly, NPSs remain an unknown quantity and have potential adverse effects (Afzal et al., 2020; Chiappini et al., 2021; Corkery & Schifano, 2022; di Giannantonio et al., 2020; Matson & Schenk, 2019; ; Vento et al., 2021). Treatment pathways for PWUNPS are scarce across the different HCSs and this needs attention due to the challenges encountered by HCPs (Campbell et al., 2017; Gittins et al., 2018). These challenges include the identification of NPS types, HCPs pharmacological knowledge, and the assessments of PWUNPS (Campbell et al., 2017; EMCDDA, 2022; Gittins et al., 2018; Guirguis et al., 2017; Guirguis et al., 2020; Ralphs & Gray, 2018; Ramos et al., 2020; UNODC, 2022). Considering these challenges, sustained support, initiatives, and developments is needed across multiple (statutory, non-statutory, and private) HCS.

1.1 | Global use of NPS

1.1.1 | Different estimates recorded surrounding NPS types

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2022) informs evidence-based research on the different NPS types which are cathinones, synthetic cannabinoid antagonist receptors (SCRAs), Synthetic Opioid Agonists, stimulants, dissociative, empathogens, depressants, and psychedelics. In addition, some empathogen-related NPSs have MDMA-type effects related to the phenethylamine family- chemical compounds related to ecstasy (Corkery & Schifano, 2022; Guirguis et al., 2017; Kuropka et al., 2023). In the United Kingdom, HCPs across HCSs and policy-makers remain under-informed about the most appropriate response towards PWUNPS. As a result, a better understanding of NPS death-related data can provide better knowledge surrounding the impact of NPS mortality rates on HCSs (Corkery et al., 2020; EMCDDA, 2021b; Millière et al., 2018). Globally, statistics estimate that 1182 NPSs were reported to the United Nations Office on Drugs and Crime Early Warning Advisory (EWA) on NPS by Governments, laboratories, and partner organisations from 139 countries and territories (UNODC, 2022). The majority of NPSs reported to the EWA remain unchanged, namely cathinones, SCRAs, psychedelics, and synthetic opioids (UNODC, 2019; UNODC, 2022). Furthermore, the NPS market is advancing with newer types of NPSs available in the crypto market hence, the statistical differences in the number of NPSs monitored (Ramos et al., 2020). Typically, the EMCDDA (2022) monitors and responds to NPS in Europe and the UNODC (2022) globally, hence some disparity in the data collected. More recently, the NPS.Finder® database (Damicom, Rome, Italy) a navigating software tool that helps identify and classify real-time molecules and psychoactive products scans the surface (crypto market) web for NPS 24/7 (Afzal et al., 2020; Arillotta et al., 2020; Matson & Schenk, 2019; ; Schifano, 2020a; Schifano et al., 2021; Vento et al., 2021). According to Arillotta et al. (2020), 5922 NPSs have been identified on the NPS finder®, including 4294 commonly known NPS such as psychedelic phenethylamines, SCRAs, and opioids.

1.1.2 | Newer insights into HCP experiences of PWUNPS

Various studies inform how HCPs clinically engage PWUNPS in single HCSs sectors at different time intervals (Arillotta et al., 2020; Corkery & Schifano, 2022; di Giannantonio et al., 2020; Gittins et al., 2018; Guirguis et al., 2017; Mullin et al., 2023; Ralphs & Gray, 2018; Ramos et al., 2020; Schifano, 2020a; Vento et al., 2021). Albeit previous studies remain unclear on how HCPs experience and view the management, assessment, and treatment procedures of PWUNPS in different HCSs types. Research on NPS experience has been mostly restricted to comparisons of studies in systematic reviews and singular HCSs surrounding HCPs knowledge and confidence (Campbell et al., 2017; Ramos et al., 2020; Wood et al., 2016). Moreover, HCPs need to assess the presentation of PWUNPS, identify the pharmacological effects (including acute intoxication by NPS), and treat the adverse effects of NPS in HCSs for better health outcomes (Guirguis et al., 2017; Mullin et al., 2023).

In the past decade, the role of the HCP is considered paramount in managing PWUNPS to minimise harm to health. Harms to health are not only limited to their neuro-psychological, or psychiatric impact, but also the physical effects which include agitation, anxiety, self-harm, and cardiovascular symptoms posing challenges for HCPs. Likewise, the acute intoxication by NPS may inflict NPS-related symptoms including tachycardia, ventricular fibrillation, and hypertension, dependence on NPS categorical class, for example, stimulants (Corazza & Roman-Urrestarazu, 2018; Dargan & Wood, 2022; Guirguis et al., 2017). Accordingly, HCPs must act to assess, diagnose, and treat PWUNPSs to prevent harm to health (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020; Campbell et al., 2017; UNODC, 2022; Wood et al., 2016). Intoxicated PWUNPS are present in accident and emergency departments, mental health units, and community settings (Ralphs & Gray, 2018) and include nursing, medical, occupational therapy, recovery workers, managerial, psychology, and psychiatric roles. The complex nature of NPS's heterogeneous group of chemicals continues to create significant challenges for HCPs and a lack of laboratory tests to identify NPS use (Guirguis et al., 2017; Simonato et al., 2013). Hence, they may be at risk of missing opportunities to offer effective interventions, leadership, and educational awareness surrounding NPS use (Corkery et al., 2018; UNODC, 2022).

1.2 | Study aims

The study explored HCPs experiences, views, and challenges towards PWUNPS across statutory, non-statutory, and private HCSs. The specific aims of this research were to provide:

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(a) An understanding and examination of how HCPs in different mental health and substance misuse/use HCSs offer clinical treatment for PWUNPS.
(b) An exploration of HCPs experiences, views, and challenges towards PWUNPS in different mental health and substance misuse HCSs.

2 | METHODS: SAMPLING AND ETHICS

Face-to-face interviews were conducted with participants for an in-depth understanding of HCPs' experiences in their engagements with PWUNPS. Interviews ensured a deeper, broader understanding of HCPs responses and provided opportunities for the HCPs to tell stories about how they experienced PWUNPS (Busetto et al., 2020; Kurcevič & Lines, 2020). The selection of the HCP sample overlapped with previous NPS research, for instance, Gittins et al. (2018) research on exploring NPS use in treatment recruited (n = 12) HCPs for interviews in non-statutory addiction HCSs based in Devon and Cornwall. In addition, Campbell et al. (2017) mixed methods study recruited (n = 13) HCPs for telephone interviews to explore the perceptions of HCPs in statutory HCSs. The HCP sample was initially decided to be nine individuals, for instance, three HCPs across each HCS sector; however, data saturation was reached at 14 HCPs (Table 1). Research leads, and project officers recruited HCPs through online advertisement and email in HCSs. They were selected based on the purpose of their roles and relevance to the study, as per inclusion criteria (Table 2).

A purposive sample of (n = 14) HCPs was recruited in three diverse types of HCS provision, namely, one statutory community drug and alcohol team (n = 3), two non-statutory charity-based community drug and alcohol teams (n = 3) and two private (n = 6) mental health and substance misuse rehabilitation units (n = 2) (in five) HCS. They consisted of nurses, psychologists, operational and clinical service management, recovery workers, and occupational therapy assistants. In total, the author (DS) interviewed 6 men and 8 women (n = 14, labelled P1-14) aged 20–70 years (mean = 42.5 years) between May and July 2019 (Table 1). This qualitative research obtained ethical approval from the Anglia Ruskin University Ethics Committee, five different HCS internal research and development departments, and the Health Research Authority (IRAS (Integrated Research Application System) project ID: 242695).

2.1 | Methods: Pilot review and semi-structured interviews

Fourteen in-depth qualitative semi-structured interviews were conducted across five different mental health and drug and alcohol HCS based in metropolitan London, Hertfordshire, Essex, and Norfolk. Interviews were conducted in a distraction-free zone, namely in portacabins or pre-arranged offices, and conference rooms, and all interviews were audio-recorded with a mean duration of 30 min 55 s (with a range of 15 min 22 s to 57 min 57 s). The author obtained written and verbal consent prior to the interview. Additionally, participant information sheets were completed, read, and understood prior to the study, and commencement of interviews. Thus, confidentiality and anonymity were protected following informed consent (Firth et al., 2020). Piloting reviews of the interview guide ensured the questions were suitable for use, and open questions were used to avoid leading questions and responses. The pilot review process involved 10 local HCS service managers, HCPs, and researchers to ensure reliability and validity (Appendix 1).

TABLE 1 Participant sampling order 1–14.

Health care service	Health professionals: 6 M, 8 F	Code	Age	Sex
Private drug and alcohol rehabilitation HCS	Participant 1	P1	42	F
	Participant 2	P2	35	F
	Participant 3	P3	20	F
	Participant 4	P4	55	M
	Participant 5	P5	45	M
	Participant 6	P6	45	F
Private mental health rehabilitation HCS	Participant 7	P7	30	M
	Participant 8	P8	60	F
Non- statutory HCS- psychosocial young adult drug and alcohol HCS.	Participant 9	P9	40	M
Non- statutory HCS- community drug and alcohol team	Participant 10	P10	28	F
	Participant 11	P11	45	M
National health service, statutory HCS- community drug and alcohol team.	Participant 12	P12	70	M
	Participant 13	P13	30	F
	Participant 14	P14	50	F

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TABLE 2 Inclusion and exclusion criteria.

Inclusion	Exclusion
Age 18–65 years	Under 18 years of age
(M/F)	Over 65 years of age
English language speaking	Non- English speaking
Nursing, drug workers and other allied health professionals.	HCP less than 1 years' experience
HCP with 1 years NPS use experience	HCP that has no clinical background
HCP qualification	HCP with no qualification
Healthcare providers	No consent form signing
Consent form signed/permissions.	

The first set of questions ensured verbal and written consent (participant information and consent forms), a discussion of the role of the interviewer, the purpose of the study, and the experiences of HCPs. The second phase of interview questions explored the views and beliefs of HCPs, namely their views, beliefs, roles, and experiences of HCPs based on their contact with PWUNPS in HCSs. For instance, question 11 asked HCPs how assessment processes can be improved in the anonymised HCS (Appendix 1).

2.2 | Methods: Data analysis and ethics

Thematic analysis (Braun et al., 2019) helped describe and interpret the HCPs day-to-day experiences with PWUNPS (Braun & Clarke, 2006; Neubauer et al., 2019). The research was inductive, and themes were analysed under Braun and Clarke's (2006) six thematic analysis steps. The author (DS) ensured the interviews were audio-recorded and transcribed verbatim. The information was re-read several times to ensure familiarisation with the data, subsequently, low-level themes (sub-themes) themes identified. Subsequently, interview data were uploaded onto NVivo 12 software (Figure 1), coded, clustered, grouped, and categorised (Bergeron & Gaboury, 2019). The author (DS) under the supervision of the co-authors (JG, LGM, and AG) analysed the codes and created visual maps to help narrow down the themes. Many techniques such as cognitive mind-maps, exploring thematic networks, and conceptual drawings (Firth et al., 2020) helped develop a summary of the potential themes (Figure 2). The mapping of themes helped summarise the data and interpret the findings. After much discussion with the research team (JG, LGM, and AG) and revision, the team defined a set of five themes (Figure 2).

3 | RESULTS

Analysis of the transcriptions identified five main themes concerning HCPs experiences and views on PWUNPS: '*Organisational issues*,' '*Stigma*,' '*Assessment*,' '*Symptoms*,' *and* '*Harm reduction*.' The themes were identified due to their prevalence amongst many quotations. The themes are comprised of relevant sub-themes (Table 3).

3.1 | Theme 1: HCS organisational issues: Perceived need for support

Organisational issues were found to be an overarching theme as the majority of HCPs discussed how HCSs may hinder their professional support needs and their opportunities to develop skills, and confidence to treat PWUNPSs (P7; P8). They perceived differences in the support received in their HCSs, depending on their level of qualification (P12). For instance, HCPs lacking qualifications tended to perceive less support whereas HCPs with more qualifications tended to perceive more support in their roles (P8; P7). The findings indicated that a lack of job role qualifications and support in statutory and private HCS may impact HCPs confidence and motivation to treat PWUNPS:

> So, I have had some experience of service users talking about SPICE, but I do not have a huge amount of contact dealing with these types of drugs. I do not have a lot of specialisations in dealing with though with drugs, certainly drug misuse, unfortunately. And which is something I would like to remedy, but that level of training is not available for my role. In this organisation they say I am not qualified, therefore not important, the management also discussed that I need to reapply for my job. My face does not fit. HR is not supportive of my problems, and I am under pressure. It has been eight years (in this employment) with no scope qualifying or getting any promotion or anything. (P7)

> It is not really within my remit, I have an unofficial knowledge of what goes on, but I do not have any qualifications related to managing NPS. (P12)

> I'm probably not in touch with that currently and do not have the confidence really (P8)

> The supervisor will visit me for supervision. I can contact her by phone or by email to arrange the next supervision meeting (P8)

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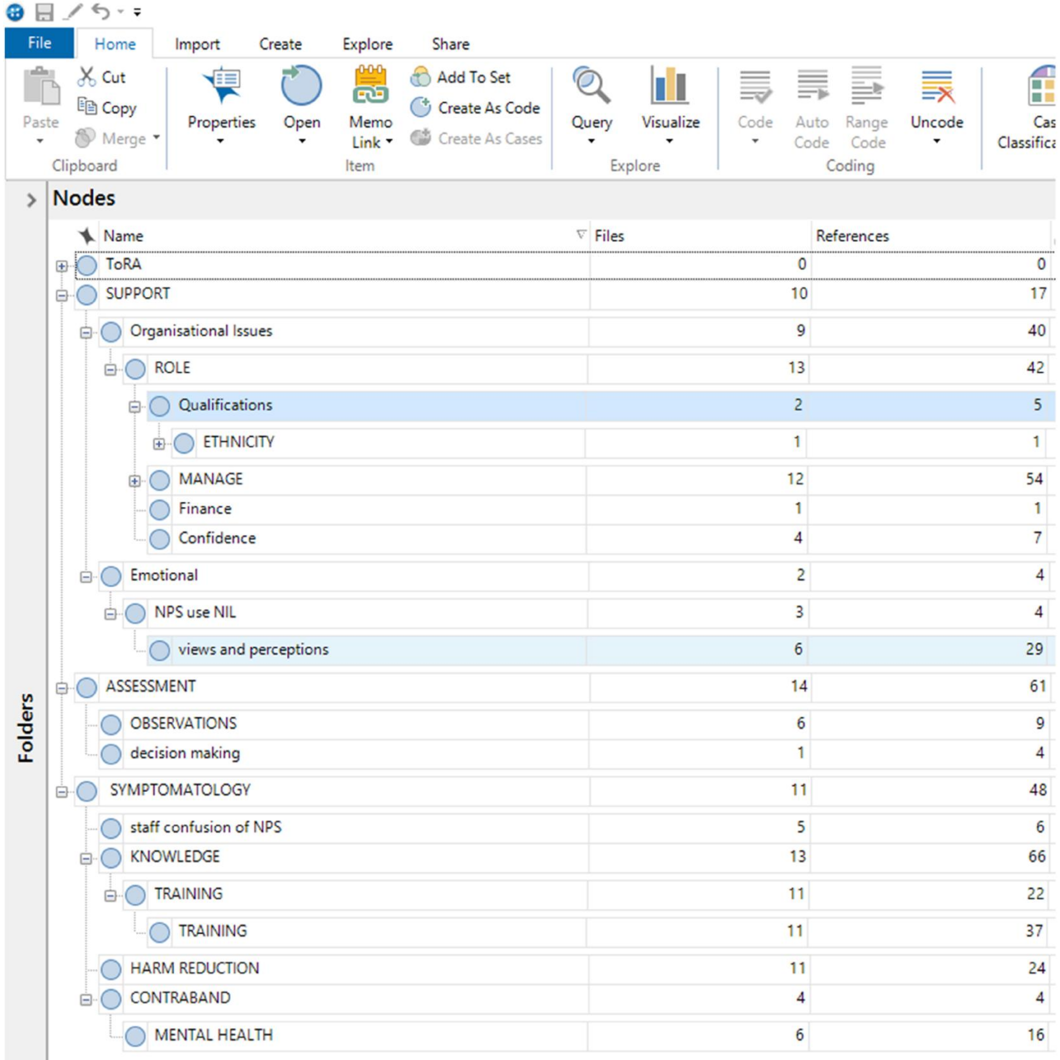

FIGURE 1 NVivo 12 online categorisation of the Nodes and Sub-Nodes.

3.1.1 | Views surrounding funding in clinical practice

Three HCPs perceived that organisational changes, for instance, funding cuts in HCSs impacted the quality of care for PWUNPS in HCS treatment. This, in turn, affected HCPs' perceptions and ability to deliver drug and alcohol treatment for PWUNPS and People who use drugs (PWUDs). Further, the majority of the interviewees advised that organisational changes and budget cuts have impacted the care of PWUD/PWUNPS accessing treatment in addiction settings (P13; P12; P3). The funding position of HCS organisations may influence the need to recruit HCPs. Findings from the non-statutory HCS, show that recruiting volunteers and recovery workers, rather than qualified nurses, may be influenced by HCSs funding agreements, which in turn may impact the support offered to HCPs and service users. While both statutory and non-statutory HCSs seek contracts from the local authority (commissioning groups), private organisations are more interested in private funding from both the statutory and non-statutory organisations and privately funded service users. They felt that they needed development in their roles, however, some organisations did not have the resources to train HCPs (P7). The lack of funding for HCP training impacted the treatment outcomes for PWUNPS.

> We are not commissioned to deal with NPS. We are only commissioned to prescribe and deal with opiates. If there is no opiate use, there is no opiate use, then we are not going to see them (PWUNPS). Whereas other partner organisations will work with all substances across the board. But we are opiate service user-focused and that is the reason we are not seeing them. So, if somebody is using NPS then we do not encounter them. (P13)

> The amount of funding available to agencies and the NHS (National Health Service) is inadequate. Having worked in the field for as long as I have and having been involved with commissioners over the years, knowing how much money comes directly into the drug

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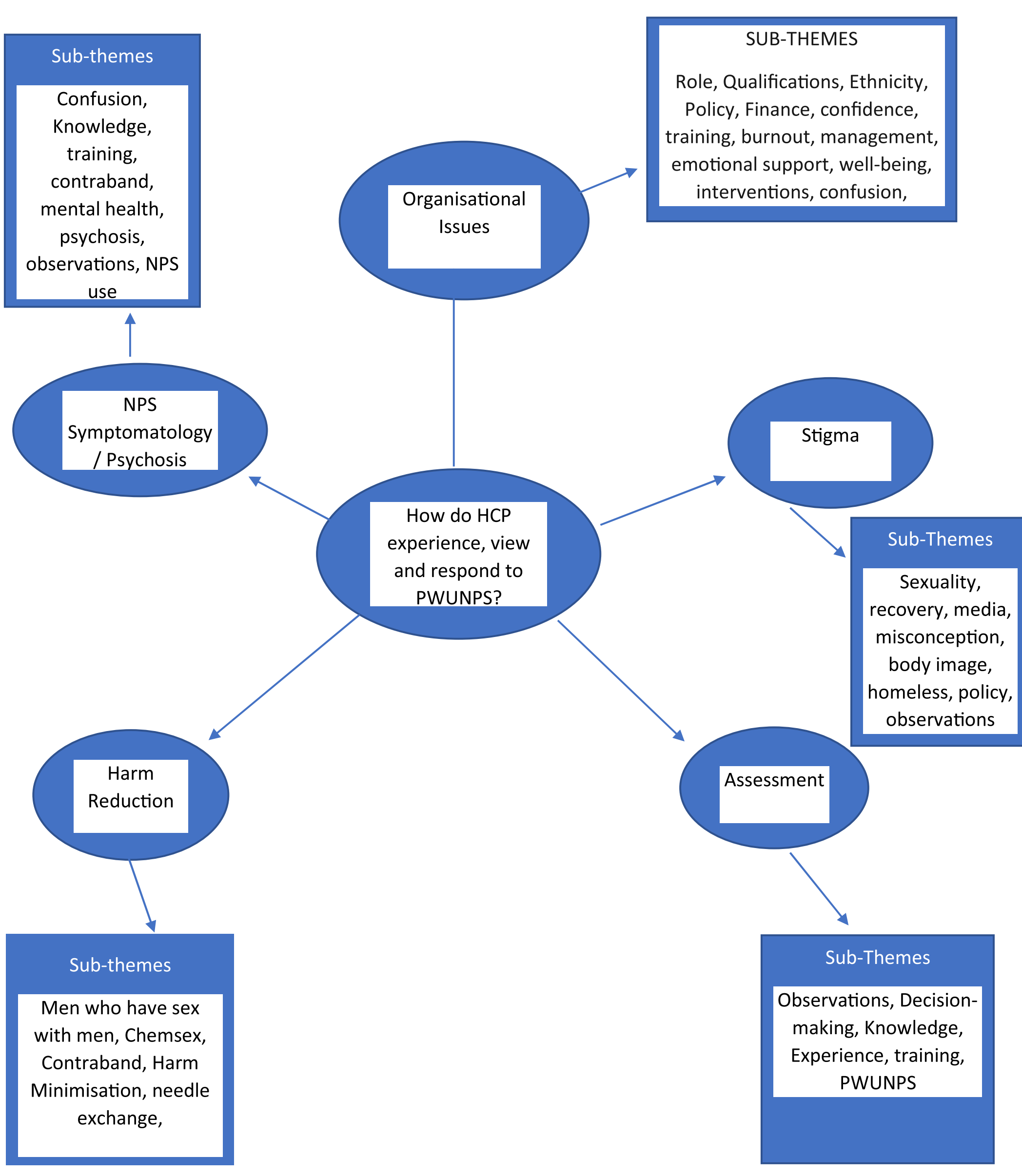

FIGURE 2 The Thematic Map: themes extracted through a thematic analysis (Braun & Clarke, 2006).

> part. My only comment is it is underfinanced like lots of society is. (P12)

> The norm was six months. Many people in **** house were there for twelve months, then it was six months and now you will be lucky if you get twelve weeks. (P4)

> They will not train me in my role as there is a lack of funding. (P7)

3.1.2 | Lack of training

The HCPs reported experiencing a lack of training relating to NPS (P3; P14) and requested NPS training to promote better awareness surrounding the interventions needed for PWUNPS. They suggested training needs to incorporate policy pathways relating to SCRAs (P10), knowledge of NPS-specific types, and PSI (Psychosocial Intervention) (P14) for better treatment health outcomes.

> I know that there are no like (policy) pathways for someone physically addicted to SPICE. (P10)

> I think we do need training because my knowledge is little on NPS. (P3)

> I think that would be beneficial (training on NPS), telling them what it does to you physically, how it affects you mentally. I think that would be helpful and what support is available because I know there is

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TABLE 3 Organisational barriers associated with the management of PWUNPS.

Participant	Organisation	Role	Quotes: Organisational theme 1	Themes/Sub-themes
P1	Private	RW	*'I'm not too familiar… and that's just a fact with this drug testing for NPS'*	Interventions/Confidence "familiar"
P2	Private	RW	*'I think legalising and monitoring NPS will be usually helpful, and they have legalised now almost, right'*	Training "monitoring"
P3	Private	RW	*'I was nearly crying; I did cry actually and I rang up my mum and I was like this place is so good and I burst into tears'*	Support "place is so good"
			'I think we do need training because my knowledge is little on NPS'	Training "knowledge is little"
P4	Private	C	*'The norm was 6 months. Many people in **** house was there for 12months, then it was 6 months and now you'll be lucky if you get 12 weeks.*	Finance "norm"
P5	Private	RW	*'I'd have to speak to the psychiatrist'*	Intervention/Confidence "help"
P6	Private	M	*'I think the training is absolutely so important because ignorance is right around that stuff'*	Training "ignorance"
P7	Private	AOT	*'I don't have a lot of specialisations in dealing with though with drugs, certainly drug misuse unfortunately. And which is something I would like to remedy, but that level of training isn't available for my role*	Support/Training/qualifications "Training"
P8	Private	PSY	*'I'm probably not in touch with that currently and do not have the confidence really'*	Confidence "Do not have"
P9	Non-stat	RW	*'No training on NPS at all'*	Finance/Training"Training"
P10	Non-stat	RW	*'I know that there is no like (policy) pathways for someone physically addicted to* SPICE'.	Training/Interventions/PWUNPS
P11	Non-stat	M	*'I do the pads, bags, lots of work where I walk someone down and I'll pretend I'm addiction'*	Training/Intervention/Support 'sport' 'boxing'
P12	Statutory	RW	*'I don't have any qualifications to really to an inch'*	Support/"qualifications"
			'I think it's an underfinanced'	Finance "funding"
P13	Statutory	NUR	*'We are not commissioned to deal with that'*	Finance "commissioned"
P14	Statutory	RW	*'I think that would be beneficial (training on NPS), it's purely psychosocial support isn't it?'(P14)*	Training/Support/Interventions

Note: A list of all the sub-themes related to the theme, with respective quotes by HCPs.
Abbreviations: AOT, assistant occupational therapist; C, counsellor; M, manager; NUR, nurse; P, participant; PSY, psychologist; RW, recovery worker.

> nothing you can do, it is purely psychosocial support, isn't it? (P14)

> I do not have a lot of specialisations in dealing with though with drugs, certainly drug misuse, unfortunately. And which is something I would like to remedy, but that level of training is not available for my role. (P7)

3.2 | Theme 2: Stigma

3.2.1 | Poor perceptions of the homeless

The HCPs often recalled experiencing PWUNPS being homeless and subject to stigma due to drug use. The finding indicated that PWUNPS access to mental health treatment may be associated with poor perceptions and stigma from HCPs and the public (P8; P3). For instance, PWUNPS are exposed to different types of stigma, including public stigma. Public stigma refers to prejudice and discrimination towards a specific group or sub-group of individuals (Wogen & Restrepo, 2020). Therefore, stigma can influence the care of PWUNPS including treatment seeking and the choice of treatment resulting in poor health outcomes (PHE, 2021). The poor perceptions of the public may be associated with influences from the media and governmental policy (P3). The media often dramatises the link between drug misuse and violence (Table 4). They suggested that the political strategy and policies of the government are not addressing stigma and homelessness and more needs to be done to help PWUNPS, thus impacting health outcomes:

> We usually walk right past these people who were homeless. When you are treating someone, you are not just treating them as an individual in their psychological issues or mental health issues. We must look at the whole of society. Quite often societies forget the homeless and all governments understand that. (P8)

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TABLE 4 Stigma quotations of participants.

Participant	Organisation	Role	Quotes = Stigma theme 2	Themes/Sub-themes
P2	Private	RW	*'Drug users are very great manipulators but expecting some sort of honesty too. (P2)*	Stigma
P3	Private	RW	*'There's nothing that says in any of that mental health stuff (Mental Health Media), we will deal with the drug addicts and the homeless'*	Homelessness
			'I think there's probably a link between sexuality and drug use' (P3)	Sexuality
P5	Private	RW	*'The way that social media and the media betray (PWUNPS) they use those words like zombie drug addicts. (P5)*	Sexuality
P8	Private	PSY	*'We usually walk right past them'. (P8)*	Homelessness
P9	Non-stat	RW		Stigma
			'What I found is when people were coming to recovery, they are told to forget the past and utilize all the skills learnt already. (P9)	Recovery
P10	Non-stat	RW	*'It was often a younger cohort, people who maybe higher functioning. (P10)*	Stigma
			'I had one guy who was in the Men who have Sex with Men and he did do those parties where he used TINA. (P10).	Sexuality
P11	Non-stat	M	*'I don't believe there should be a stigma (for PWUNPS). (P12).*	Stigma
P12	Statutory	RW	*'If you treat this like your leg (should it break), I'm not responsible for you maintaining your recovery were giving it to you'.* (P12).	Recovery
P14	Statutory	RW	*'I probably think the misconception out there'. (P14).*	Stigma

> There's nothing that says in any of that mental health stuff (Mental Health Media), we will deal with the drug addicts and the homeless. (P3)

> Arrest someone because they want to sleep somewhere for the night and they are (people who use drugs) all using and they are coming off that drug in cells, they rattle (withdraw of a substance) and attack police officers. (P3)

3.2.2 | Experiences regarding recovery

The HCPs reported a recovery- orientated approach for PWUNPS was a necessity in addressing stigma across HCSs. A recovery-orientated approach is a mental health care approach that supports an individual's recovery (Solomon, 2021). The experience of stigma by PWUNPS may cause a lack of motivation, a lack of coping mechanisms, and a lack of stable relationships and coping mechanisms (Solomon, 2021; Table 4). They reflected upon recovery-orientated practices lacking in service provision. Some applied the concept of '*recovery*' in aspects of a service user's treatment, including interventions, for instance, Neuro-linguistic Programing to help meet PWUNPS psychological needs (P9). Further, a boxing programme with a recovery concept philosophy was implemented in two different HCSs and they described how recovery could help manage their recovery and treatment (P11). In addition, some HCPs reported how HCSs need to be patient-centred in addressing PWUNPS recovery (by utilising the recovery model and concept) in the management of stigma (O'Keeffe et al., 2018; Solomon I., 2021). Interestingly, findings showed that nurse HCPs in the statutory HCSs ($n = 3$) did not incorporate the recovery concepts or show recovery-oriented practices towards addressing the potential stigma related to PWUNPS.

> I do the pads, bags and I will pretend I am addiction, this is not an easy skill. (P11)

> What NLP does is it tells you to hold on a minute, you do not need to learn how to set goals already because you have consistently set goals. So now let us switch the goal set and behaviour mechanism into a positive lifestyle in terms of the recovery capital. This should be step by step process in teaching the clients how to recognise how they behave and how to achieve the recovery goal and the recovery lifestyle now positively. (P9)

> If you treat this like your leg (should it break), I am not responsible for you maintaining your recovery we are giving it to you. (P10)

3.2.3 | Views on sexuality and NPS

The study showed that sexuality and NPS were at times intertwined/related. The term Chemsex has emerged and is defined as drug use before or during sex by MSM (Men who have Sex with Men)

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(Maxwell et al., 2019; Stuart, 2019). HCPs reported that they had found an association between PWUNPS (P3) and chemsex. Chemsex is often associated with the use of methamphetamine, mephedrone (NPS), Gamma-Hydroxybutyric acid (GHB), and/Gamma-Butyrolactone (GBL) use (Drysdale, 2021; Sewell et al., 2019), thus, PWUNPS may be prone to stigma by the public and HCSs (P10): Furthermore, HCPs indicated that PWUNPS may engage in chemsex because of feelings of unacceptance of established sexuality (P3) and people who engage in chemsex (PWEICS) find it difficult to 'come out' as gay.

> I had one guy who was in the Men who have Sex with Men group, and he did do those parties where he used TINA (methamphetamine) -which is form a Crystal meth is common in those kinds of parties. (P10)

> I think there is a link between sexuality and drug use. (P3)

> I have Lesbian Gay Bisexual Transgender Queer Intersex, A-sexual + (LGBTQIA (+)) friends who have numbed it all out (their feelings) and have become alcoholics or addicts because they cannot handle the fact that nobody accepts them for who they are (being LGBTQIA (+)). (P3)

> I think they have turned to psychoactive substances to stop them feeling whatever it is their feeling (P3)

In the next section, one of the themes surrounded a lack of assessment for PWUNPS.

3.3 | Theme 3: Assessment of PWUNPS

Assessment procedures for PWUNPS were deemed non-existent in HCSs, thus, posing challenges for HCPs. Some HCPs reported adapting existing assessment paperwork tools as appropriate. Amended assessments were offered on a need basis across both the non-statutory settings, however, no consistent assessment paperwork exists for HCPs in the private and statutory HCSs. They noted brief intervention tools providing a mini assessment of intoxication surrounding NPS use. Furthermore, they raised concerns surrounding their own lack of knowledge of acute NPS-related intoxicated symptoms and assessment processes (P11). Considering this, HCPs based in the community (non-statutory HCSs) reported that triage assessments or paper-based tools are essential in the identification and management of PWUNPS presenting with acute intoxication by NPS. Interestingly, P14 from the statutory HCS was reluctant to engage in any assessment of PWUNPS and the prescribing of medicines. Typically, the Novel Psychoactive Treatment Organisation (NEPTUNE) Project (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020) guidelines were subtly reported as providing a useful brief intervention in the management, assessment, and support of PWUNPS (brief assessment). However, they did not specifically identify this useful guidance, but highlighted NPS is not on their computer system for assessment (P9) (Table 5).

> I think it would be extremely useful to be able to distinguish the differences in how someone's symptoms of NPS use might compare between someone who is drunk on alcohol and someone who is using legal highs, and can I spot it? What are we looking out for? How do we assess that? What do we do to help that person immediately who is all confused, and high as opposed to being drunk on alcohol? So, I think it would be important for staff to have that. (P11)

> So, we just deal with the prescribing side, and they deal with all the assessments and things like that. (P14)

> We tend to brief intervention as opposed to being triaged and then being stuck in a system where there is nothing to do for them because the system does not really recognize psychoactive substances. (P9)

3.3.1 | NPS knowledge of HCPs surrounding PWUNPS

Variations in knowledge of NPS in terms of PWUNPS and acute intoxication by NPS presentations were reported (P7; P14). They found that PWUNPS were actively seeking treatment in drug rehabilitation and contraband (NPS) was available in prisons (P1). Interestingly, HCPs discussed their own personal encounters with their own family members who worked in prisons and reflections on SCRAs being smuggled into prisons. In fact, Corazza et al. (2020) highlighted the importance of investigating the experiences of NPS use in prisons.

> SPICE, (SCRAs) in the prison where my husband is working is put into liquids and sprayed on letters. (P1)

> No one understood whether this person had used this (NPS) drug or not or whether we could prove it one way or the other. So, there is a lot of confusion and ignorance. (P7)

> I am quite aware of what NPS does. (P14)

3.3.2 | HCP experiences regarding acute NPS intoxication

Several HCPs experienced various challenges and perceptions surrounding acute intoxication by NPS presentations by PWUNPS (P1).

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TABLE 5 Assessment of PWUNPS.

Participant	Organisation	Role	Quotes = Assessment theme 3	Themes/Sub-themes
P1	Private	RW	*'I would like to understand not only the short-term effects that what people get out of using NPS's but what the biological and the psychological effects'*	Assessment Understanding Drug effect
P3	Private	RW	*'If someone's presenting, vomiting, then you'd give an antiemetic or you know'.*	Symptoms
P4	Private drug and alcohol	RW	*'Most of the time, if something doesn't add up in your assessment, your intuition, your experience does pick that up'.*	Assessment
P7	Private	Occupational therapist assistant	*'No one understood whether this person had used this (NPS) drug or not or whether we could prove it one way or the other. So, there's a lot of confusion and ignorance'*	Confusion "confusion and ignorance"
P9	Non-statutory	RW	*'We tend to brief intervention as opposed to being triaged'*	Brief intervention and triage
P9	Non-statutory	RW	*'In my experience has been dealing with the young people when they are 15 to 16- who can tell the difference between real cannabis and synthetic SPICE'.*	Young people
P11	Non- statutory drugs and alcohol	RW	*'I think it'd be very useful to be able to distinguish the differences in how someone 's symptoms of NPS use might compare between someone who's drunk on alcohol and someone who's using legal highs and can I spot it? What are we looking out for? how do we assess that?*	Differences: "*between someone who's drunk on alcohol and someone who's using legal highs and can I spot it*" Assessment: "*how do we assess that?*"
P11	Non- statutory	Manager	*My view of it is, it seems generally younger people'.*	Knowledge Young people
P12	Statutory	RW	*'When I do an assessment, the first thing I do is put the paperwork down and aside and concentrate on the individual present and request a 2-min summary'*	Assessment "paperwork"
P14	Statutory	Nurse	*'So, we just deal with the prescribing side and they deal with all the assessments'*	Assessment and prescribing

They informed the author (DS) that observing PWUNPS during the assessment and monitoring blood pressure, temperature, respiratory rate, and heart rate had proven a safe and effective assessment technique (P7). Some reported acute symptoms of NPS use include vomiting, confusion, aggression, seizures, and mental health psychosis that need to be monitored and managed by pharmacological interventions (P3).

> Her eyes did not look right, her demeanour, with the behaviour, was not right, slurred speech, it just was not right, it was just how would someone look normally using, I did not see anything particularly different. (P1)

> If someone's presenting, vomiting, then you would give an antiemetic, or you know if someone is dizzy and you are doing something before the dizziness. Just monitor the behavior changes. (P3)

> If we have suspected that they have used upon arrival back at the unit. They would immediately be placed on that level of observation. Physically monitoring them is what we would do and if someone comes back from unescorted leave (Mental Health Act, 1983 leave). (P7)

The next section explores the experiences of HCPs and PWUNPS intoxicated symptoms.

3.4 | Theme 4: Mental health NPS use symptoms

3.4.1 | NPS symptoms related to acute intoxication

The pharmacological effects and acute intoxicated symptoms associated with NPS pose severe mental health problems and challenges for HCPs offering clinical treatment (di Giannantonio et al., 2020). One HCP experience surrounded the use of SCRA's causing paranoia

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(P9) as Box 1. Some suggested psychological interventions including Cognitive Behavioural Therapy and pharmacological interventions such as anti-psychotic medication are key to treating the mental health and psychological symptoms of PWUNPS (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020; Chiappini et al., 2021; Cully et al., 2020; di Giannantonio et al., 2020). HCPs experienced (P1), some confusion surrounding the treatment of PWUNPS who present with psychotic symptoms, hence, needing NPS-related training and guidance on treating the NPS and mental health problem-related presentations (Box 1). Once more, there was no specific mention of any pharmacological management on treating symptoms associated with acute intoxication by NPS (P7), for instance, the NEPTUNE project or handbooks (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020; Corazza & Roman-Urrestarazu, 2018; Dargan & Wood, 2022).

BOX 1 HCPs perceptions of mental health symptoms associated with NPS use

> "So, there is a lot of confusion and ignorance around the subject. One service user went berserk! Ranting and raving in his towel! It was so unlike him, but he had just started his anti-depressants and it makes him sleepy on them." (P1)
> "You know spice. And you know, seizures have been known if that was one feature" (P4).
> "If a patient has been drunk induced as a consequence, we've been given guidance on what to do in those regards of giving the right advice." (P7)
> "SPICE causes certain paranoia and service users report hearing voices (auditory hallucinations) with this extreme depression as well, low moods" (P9).
> "So we kind of went over synthetic cannabinoids, like unknown white powders, talking about how to deal with people who present with NPS use and talking about the idea of dealing with people in terms of symptoms". (P10).

3.4.2 | Harm minimisation (HM) for PWUNPS

Harm minimisation (HM) was identified as important in the management of PWUNPS that enter HCSs, for instance, needle exchange (NX). Some queried the availability of implementing HM resources (P3), although this is contrary to the given evidence in the Dame Carol Black report (Black, 2020; DH; HM Government, 2022; Sunik, 2023) on newer funding for PWUDs. More exposure from Public Health England (2020) on the current HM interventions may be beneficial. Furthermore, P5 understood the implications of NPS in two localities in the UK (United Kingdom) and the impact on the homeless community:

> The government is not doing anything to help us shake it. I have been thinking about setting up petitions (related to harm minimisation) to get some sort of drug use spoken about as a sort of normal. (P3)

> I know Manchester has a huge problem (with NPS). I know London also has a huge problem of disturbances and I know that homeless (use NPS), (and) the price of NPS is much cheaper. We need protocols, what are the best measures and leaflets. (P5) (Table 6)

3.5 | Theme 5: Harm reduction (HR) for PWUNPS

HCPs experienced several challenges relating to Harm reduction (HR) strategies for MSM and People Who Engage in Chemsex (PWEICS). They reported HR approaches in HCSs lacked advice or

TABLE 6 Harm reduction theme.

Participant	Organisation	Role	Quotes: Harm minimization theme 5	Themes/Sub-themes
P3	Private	RW	*"The government aren't doing anything to help us shake it. I've been thinking about setting up petitions to sort of get drug use spoken about as a sort of just a normal"*	Government
P4	Private	RW	*If you felt there was no other option but to inject, you would offer clean needles and things. (P4)*	Needle exchange
P5	Private	RW	*'I think having basic information of how to support someone on the influence of SPICE is a good harm reduction strategy'*	Information
P7	Private	AOT	*'If a patient has been drunk induced as a consequence, we've been given a guidance what to do in those regards of giving the right advice'.*	Guidance
P8	Private	PSY	*' I didn't really know anything else about NPS when it comes to harm reduction'*	Harm reduction
P9	Non-stat	RW	*An awareness more within the field of drug or alcohol or substance misuse and drug services'*	Awareness
P10	Non-stat	RW	*'We have got groups, key working, activities, and Capital card'.*	Contingency management
P13	Statutory	NUR	*' I think they should be something else just to reduce the harms in prisons. (P13)*	Harms

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information on a national level in reducing the harms of PWUNPS and PWEICS (Bosch-Arís et al., 2022; Drysdale, 2021; Maxwell et al., 2019; Stuart, 2019). One interviewee (P8) reported a lack of information surrounding HR and expressed a need to prepare NPS-related questions and provide HR advice. Two HCPs (P13) and (P5) identified the need to focus on prisons and information. Interestingly, no prison guidance was mentioned surrounding NPS use management, for instance, Public Health England's (2017) NPS toolkit for prison staff.

> I do not really know anything else about NPS when it comes to harm reduction. We must be more prepared asking them questions about NPS and give general harm reduction advice on the basis that we do not necessarily know. (P8)

> I think something needs to be done. I have had a few colleagues in prescribing clinics having worked in prisons and heard serious incidents related to the use of NPS. I think there should be something to reduce NPS in prisons. (P13)

> I think having basic information of how to support someone on the influence of SPICE is a good harm reduction strategy. (P5)

3.5.1 | Potential PWUNPS' HM strategies

Arguably, HCPs (or HCSs) can minimise the harm associated with NPS by implementing HM strategies, for instance, needle exchange (NX) (P4), swabs, condoms, citrus acid, and water are required to minimise harm to health associated with NPS, and following HR publications (Abdulrahim & Bowden-Jones, 2022; Bosch-Arís et al., 2022; Bowden-Jones & Abdulrahim, 2020). They queried whether offering basic information on the harms of SPICE (SCRAs), psychosocial interventions, key-working, and contingency management (Cully et al., 2020; Ralphs & Gray, 2018) was beneficial. Surprisingly, HCPs from non-statutory HCSs discussed the use of a Capital Card (P10), developed by the Westminster Drug Project (Moss et al., 2020; VIA, 2023). The Capital Card is a digital innovation designed to improve service user outcomes (including PWUNPS) and commissioned by local authorities to help service users with substance use disorder (Moss et al., 2020). The Capital Card enables service users to earn-spend points system where service users accrue points for engaging with their treatment in addiction HCSs and spend them on a range of activities. Furthermore, P9 discussed the importance of raising awareness of the harms PWUNPS and PWEICS sexual health and, therefore, should promote HM advice towards MSM by offering peer groups, drop-in discussions, Blood Borne Virus monitoring, Prep (pre-exposure prophylaxis), and Pep (post-exposure prophylaxis) (Bosch-Arís et al., 2022; Guise et al., 2016; Nuh, 2016; Owens et al., 2019).

> We have groups, key working, activities, and Capital card. A Capital Card is contingency management. Every time you come in for an appointment you get 10 points and then you can spend your points in local businesses like Nando's. (P10)

> If you felt there was no other option but to inject, you would offer clean needles and things. (P4)

> An awareness of PWUNPS within the field of drug or alcohol or substance misuse services. (P9)

4 | DISCUSSION

Findings revealed five themes associated with HCPs' experiences and views of PWUNPS presentations across the different HCS. They experienced organisational issues, the perceived stigma associated with PWUNPS, NPS assessment deficits, varied understanding of NPS symptomatology, and a need for HR. More specifically, HCPs' views on organisational barriers in HCSs, including a lack of funding, support, and policies and procedures relating to PWUNPS show new insights. Interestingly, HCPs perceived their formal certification of qualifications as impactful in terms of the support network offered by HCSs (Theme 1). Furthermore, they experienced less satisfaction in their roles based on a lack of healthcare qualifications (P7; P12). For instance, P7 wanted to be a qualified occupational therapist. Implications of this finding may provide insights into HCPs emotional and psychological well-being in HCSs based on their education, job role, and training received as non-qualified HCP. Funding deficits were identified across the addiction HCSs impacting training, PWUNPS incentives, and healthcare outcomes. Interestingly, the non-statutory HCSs WDPs financial incentive (Moss et al., 2022; VIA, 2023) provides some promise in rewarding PWUNPS and PWUDs that engage in clinical treatment, therefore, HCSs may adopt this contingency management opportunity to improve health outcomes. Most importantly, addiction and mental health HCSs need to incorporate new referral pathways and policies for new drug use following the COVID-19 pandemic (Dannatt et al., 2021; EMCDDA, 2020b; EMCDDA, 2020a; EMCDDA, 2021C). In fact, the available guidelines already exist and HCSs need to take the next step to implement and integrate the NEPTUNE projects guidelines (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020; Corazza & Roman-Urrestarazu, 2018; EMCDDA, 2021a; EMCDDA, 2021d; EMCDDA, 2021d), the Independent Review of drugs by Dame Carol Black: government response recommendations (Black, 2020; Department of Health, 2021; Sunek, 2023), Public Health England (2020) and the DHART (RPS, 2022) into HCS policy and procedure.

Conversely, the study findings add to a body of current NPS-related and HCS studies including Abdulrahim and Bowden-Jones (2022), Bowden-Jones and Abdulrahim (2020), Campbell et al. (2017), Corkery et al. (2018), Corazza et al. (2020), Costello and

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Ramo (2017), di Giannantonio et al. (2020), Gittins et al. (2018), Orsolini et al. (2015), Ralphs and Gray (2018), Ramo's et al. (2020), Schifano et al. (2020a), Schifano et al. (2020b) and Woods, (2016). In this study, HCPs identified a need to attend training on the diverse types of NPS, the Psychoactive Substances Act (2016) and treating acute NPS intoxication presentations (Deligianni et al., 2020). To support these findings, Guirguis et al. (2020) study on drug testing PWUNPS, suggests identifying adulterants or exempted psychoactive substances (with high potency) may benefit from pharmacy-led NPS checking services in community HCSs and may inform HCPs training across HCSs. According to the HCPs, acute presentations of NPS intoxication are not fully understood across the different HCSs; therefore, there is a needed assessment format and policy-driven agenda needed across different HCSs. Again, it is recommended that HCPs access the available online resources, for instance, the NEPTUNE e-modules and the Drugs Wheel (Abdulrahim & Bowden-Jones, 2022; Adley et al., 2022; Bowden-Jones & Abdulrahim, 2020; Talk to; Frank, 2019). A successful way for HCS to do this is to integrate the resources in NPS-specific training, namely through educational materials, training audits, feedback from HCPs, and the assessment of users of NPS (Colquhoun et al., 2017).

Many HCPs requested assessments that entail the clinical assessment of NPS symptomatology due to acute intoxication by NPS. Moreover, they wanted information on how to manage acute intoxication by NPS, recognising stigma associated with PWUNPS, NPS pharmacology, and associated mental health symptoms, brief assessment of NPS presentations, clinical observations, and clearer referral procedures and service pathways (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020; Chiappini et al., 2021; Corazza & Roman-Urrestarazu, 2018; Cully et al., 2020; Ralphs & Gray, 2018). Nevertheless, recovery is key in assisting with both the physical and psychological health of PWUNPS, thus, providing better health outcomes (O'Keeffe et al., 2018; Solomon, 2021). In addition, stigma was associated with PWUNPS in the homeless community and the LGBTQIA + communities. Stuart (2019) highlighted the importance of considering the risks associated with chemsex and stressed the need for HR and an HM approach in HCSs through NX, contraception, support, and advice. HCPs revealed that PWEICS are at an increased risk of health problems and must be offered sexual health screening for Hepatitis C, Human Immunodeficiency Virus (HIV) and sexually transmitted diseases. Historically, the risk of HIV is 26 times higher for MSM, particularly, those that engage in unprotected sex (UNAID, 2021). Respectively, the HR and HM approaches need to be better integrated across the HCSs (Bosch-Arís et al., 2022; HRI (Harm Reduction International, 2021). Most importantly, HR is a central aim of substance-misuse government policy (DH, 2022) and remains central to best practice for clinicians across all tiers (Chuo et al., 2019). HCSs need to ensure HCPs have the training on HM to reduce the risks of harm to physical, psychological, and mental health associated with NPS (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020; HRI, 2021) including the management of Blood Borne Viruses (Sewell et al., 2019). In general, researchers and the UK government have taken a range of actions towards HR including the implementation of the PSA 2016, the updated harms assessment of nitrous oxide (ACMD, 2023), the Drugs Wheel (Adley et al., 2022), and the development of local toolkits and NPS treatment guidelines (Abdulrahim & Bowden-Jones, 2022; Bowden-Jones & Abdulrahim, 2020; ; Corazza & Roman-Urrestarazu, 2018; Dargan & Wood, 2022; DH, 2021; EMCDDA, 2021d; Gittins et al., 2018; NICE, 2014; Schifano, 2020a).

The strengths of this paper are the significant sample size of HCPs working in different mental health and addiction HCSs (Table 2). The sample of HCPs may not be representative of the broader UK population or be directly applied to the rural HCSs (Gittins et al., 2018), or studies. However, the findings may have implications for the development of further studies and research on the experiences of HCPs surrounding their contact with PWUNPS. Lastly, some limitations exist on self-reported data; however, the interviews were viewed as the best fit for exploring the experiences of HCPs and addressing the aims of this study.

5 | CONCLUSIONS

The interviews allowed HCPs a voice that was empowering and made them feel that they can make a difference towards PWUNPS. Additionally, the interviews provided HCPs with a cathartic experience and an opportunity to be listened to from their perspective. The findings suggest HCPs remain uncertain about the challenges relating to the pharmacological and clinical management of PWUNPS. They have varied knowledge of NPSs which impacted the treatment of PWUNPS. Diverse types of support dependent on their qualifications and a lack of HCS funding sources impact the care for PWUNPS were perceived. However, the non-statutory HCS initiated a financial incentive with good health outcomes for PWUNPS. All HCSs need to incorporate NPS-related training, NPS-related HR awareness and education, and clearer NPS assessment and management processes. Consequently, assessment procedures and HM strategies are needed to engage PWUNPS, PWEICS, and people with mental health problems. Several policy-making opportunities exist across different HCSs for better healthcare outcomes for PWUNPS. Additionally, the stigma associated with PWUNPS use needs further research and exploration. Similar studies on the HCP experiences of PWUNPS across different HCS organisations should be carried out to confirm and advance the findings.

AUTHOR CONTRIBUTIONS

Data collection was undertaken by David Solomon (DS) who conceived the paper, undertook data preparation and analysis, and led on the writing. Jeffrey Grierson, Lauren Godier-McBard, and Amira Guirguis supervised DS, advised on data sources, contributed information on thematic analysis, pharmacology, and treatment and Jeffrey Grierson, Lauren Godier-McBard, and Amira Guirguis reviewed the paper. All authors contributed to the writing of the study manuscript.

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CONFLICT OF INTEREST STATEMENT

No conflicts of interest are declared here that may have influenced the interpretation of the present data.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

The authors declare that Ethical approval was obtained from the Anglia Ruskin University Ethics Committee, five different HCS research and development departments (anonymised), and the Health Research Authority (IRAS project ID: 242,695).

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APPENDIX 1

Staff Interview Guide

Time 20–40 Minutes

1. Welcome the participant
2. Introduce all interview participants by name and title (David Solomon, Postgraduate student-professional doctorate).
3. Explain the role of the interviewer (record, 20–40 Mins Max, ask questions, prompt, discussion)
4. Discuss the Participant Information Form
5. Allow the participant time to read the Participant Information Form
6. Forward the Consent Form and give the participant time to read.
7. Discuss consent/get signed
8. Record on Dictaphone
9. Explain the interview process

Interview Questions

Role/Experience/Beliefs/Norms

1. Can you tell me a little about your role in *****? (Beliefs)
2. How long have you worked in *****?
3. Do you enjoy working with users of NPS? (Norms)
4. Does *** enable you to work effectively with users of NPS? (Subjective Norms)
5. Do you have a lot of experience working with users of NPS?
6. What support do you have in your role to work with users of NPS? (Subjective norms)
7. Are there any barriers to support users of NPS in your workplace?
8. Did you support users of NPS differently before the PSA 2016?
9. What training is available in your role to support users of NPS?
10. Alternatively, what training would you like? (legislation, NPS types, risks or symptoms)

Response / Views/ Attitudes/ Intentions

11. In your own opinion, how can ********** improve the assessment for users of NPS?
12. Have there been difficulties assessing NPS use without the added benefit of a drug screen?
13. Do you feel that the assessment of NPS use should be the same as a normal drug and alcohol assessment? (Beliefs/Attitudes)
    a. If so, how can you better assess NPS use? (Intentions)
    b. Are there any protocols in …………… on managing NPS use? (Intentions)
14. How can assessment procedures for assessment be better? (Motivation/Intentions)
15. What harm reduction strategies can be utilized to assess a user of NPS? (NX)
16. How can stigma best be tacked for users of NPS? (Attitudes/beliefs)
17. Is there anything else you would like to discuss?

Thank the interviewee for their time.

** Anonymous organization.

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