Novel Psychoactive Treatment UK Network

NEPTUNE

Guidance on the Clinical Management of Acute and Chronic Harms of Club Drugs and Novel Psychoactive Substances

The Health Foundation
Inspiring Improvement

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Chapter 2

Psychosocial interventions for club drugs and novel psychoactive substances

There is a large body of evidence on the effectiveness of psychosocial interventions (PSIs) for the management of substance misuse problems, as well as national guidelines. It is therefore possible to make specific and robust recommendations.

Effective treatment for all substance misuse problems includes PSIs. These in fact are the primary form of treatment intervention for the misuse of, and dependence on, the majority of substances, as few types of substance misuse have recognised pharmacological interventions.[1] Where pharmacological interventions do have a role, for instance in opioid dependence, PSIs are generally believed to enhance treatment outcomes.[2] PSIs are important in helping people prepare for planned, medically assisted detoxification and are essential following detoxification, to sustain changes.

Psychological interventions for substance misuse problems focus on supporting behaviour change to achieve desired outcomes. PSIs may aim to support people to achieve abstinence from use of specific or multiple substances, or a reduction in use to a less harmful level or using substances in a less harmful manner. Psychological interventions are also used to help with co-occurring psychological, social or physical problems, again with the aim of contributing to sustained change in substance misuse.

The evidence for the effectiveness of PSIs for a range of substance use problems is very positive. However, in what Orford terms the 'outcome equivalence paradox', no single approach is regarded as universally superior. [3] In the UK, several specific psychosocial approaches reach the standard of evidence to be recommended by the National Institute for Health and Care Excellence (NICE; formerly the National Institute for Health and Clinical Excellence) and meta-analyses such as Cochrane reviews (see Table 2.1). Very limited research has so far been published relating specifically to PSIs for the treatment of NPS. Where this exists, it has been summarised in the relevant chapters in this publication. Given the growing use of NPS and the concerns about direct and associated harms, the expert group sees this as an area to be prioritised for high-quality research.

In the UK, the evidence for the effectiveness of PSIs for drug misuse is described in the NICE guideline *Drug Misuse: Psychosocial Interventions*[4] and further elaborated in the document *Drug Misuse and Dependence: UK Guidelines on Clinical Management*.[5] However, these publications largely relate to opioid and (crack) cocaine treatment.

This chapter makes important recommendations on initial and lower-intensity responses for individuals who identify use of club drugs and NPS but focuses mostly on the psychosocial treatment options for their problematic use (including

Table 2.1. *Summary of evidence for the effectiveness of PSIs for substance misuse*

Document	Content and conclusions
NICE recommendations (CG51, 2007) on drug misuse[4,8]	Brief interventions (motivational interviewing) Information on self-help groups Behavioural couples therapy Contingency management Evidence-based PSI for co-occurring psychological problems
Government clinical guidelines (2007) on drug misuse[5]	*NICE 51 plus:* CBT-based relapse prevention Community reinforcement approaches Social behaviour network therapy Family therapy Psychodynamic therapy
NICE recommendations (CG 115, 2011 and 2013) on alcohol misuse[7]	Motivational interviewing Information on self-help groups CBT-based relapse prevention Behavioural therapies Social network and environmental therapies Behavioural couples therapy Evidence-based psychosocial interventions for co-occurring psychological problems
Cochrane reviews: Smedslund et al. (2011)[9] Knapp et al. (2007)[10] on cocaine and psycho-stimulants	Motivational interviewing Contingency management CBT Community reinforcement approach
National Treatment Agency (2005)[11]	CBT – coping skills Motivational interviewing Relapse prevention Community reinforcement Contingency management Supportive expressive psychotherapy Family therapy Social behaviour network therapy
NICE (PH 49, 2014)[6]	Proven behaviour change techniques: goal setting and planning feedback and monitoring social support

dependence). Many NPS are stimulant in nature and this chapter therefore draws heavily on research for the treatment for stimulant misuse. However, it also draws on the broader literature on PSIs for health behaviour change in general, for which the evidence base is described in NICE's public health guidance *Behaviour Change: Individual Approaches*.[6] Reference is also made to commonly accepted good practice for effective psychological interventions in general.

Patterns of NPS use show a close parallel to recognised patterns of alcohol use: the most common pattern is infrequent, non-dependent use, with lower risk of severity and likelihood of harm; through to a much smaller proportion of entrenched dependent use with the potential for more significant associated harm. The chapter therefore also draws on the much more extensive literature on PSIs for alcohol problems. These are described in NICE guidance (number 115, originally published in 2011 and updated in 2013) on the diagnosis, assessment and management of harmful drinking and alcohol dependence.[7]

2.1. Stepped care

Psychosocial interventions for substance use are commonly provided following a stepped care model (Figure 2.1).[12,13]

Within stepped care models, psychosocial and psychological interventions are grouped according to the level of specific psychological treatment competences required to deliver them effectively. It is therefore common to refer to 'lower-intensity PSIs' and 'higher-intensity PSIs'.

The main principles of a stepped care approach are as follows:

- The least intrusive intervention needed to achieve a required outcome is delivered first.
- If an intervention does not achieve the desired outcome, service users should be offered the option of being 'stepped up' to a more intensive intervention.
- Where a higher level of intensity of treatment is no longer required, 'stepping down' to a less intensive option should be offered.
- Service users should have access to all levels of treatment within a treatment system.
- Service users should have direct access to the intensity of intervention likely to be required to achieve their desired outcomes, and not unnecessarily proceed through lower levels in a stepwise order.

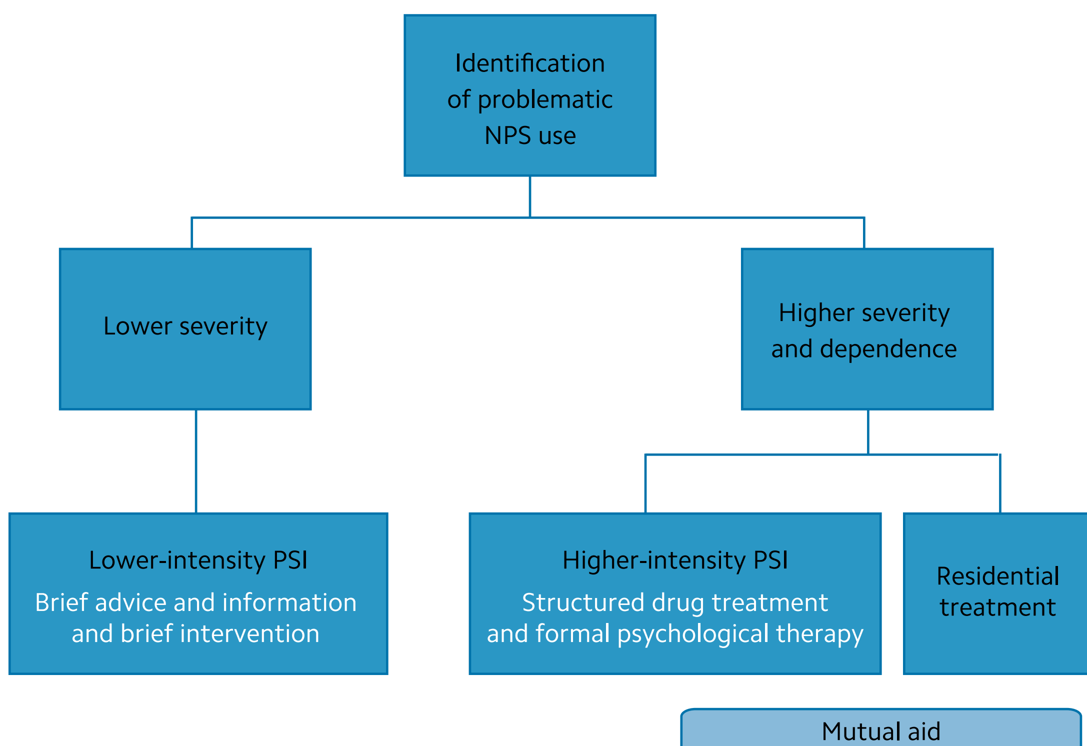

Figure 2.1. *Stepped care PSI for problematic NPS use*

2.2. Identification of NPS use and its severity

The clinical identification of individuals experiencing NPS harmful use, misuse or dependence, particularly those less severely affected, is not always easy when regular use may be linked to a clubbing-related lifestyle. Determining the need for specific psychosocial interventions to address behaviour change will also be influenced by a wide range of factors. Many people make substantial changes to their substance misuse without formal treatment.[3]

Substance use or intoxication is not in itself an indication for treatment. Unlike the several robust screening tools for alcohol use, there are no recognised screening tools for NPS use and routine screening for NPS use in general health care settings has not been recommended. However, any contact with a health professional where NPS use is identified can be an opportunity to offer non-judgemental health advice on safety and, potentially, change.

Self-report, incidental or opportunistic enquiry may reveal NPS use and risk but no evidence of harm or need for a treatment intervention. This provides a potentially useful opportunity to offer information and brief advice or to signpost to sources of other information. Other individuals will provide clearer evidence of at least some degree of problematic use. Many such problematic users may well be able to change their risky behaviour without assistance and not require professional help. Some of these problematic users will benefit from the offer of information and brief advice (and/or signposting). Brief advice and information should also be considered (in addition to the offer of referral to formal treatment services) where higher-severity NPS use and dependence are identified. This would amount to an opportunistic intervention for anyone who does wish to, or does not go on to, access treatment at that time. When information and brief advice is used in this way to help address problem use, it forms part of the stepped care 'treatment' pathway shown in Figure 2.1.

Contemporary thinking emphasises approaches based on strengths and needs, for example a 'recovery capital' model, rather than a deficits-based approach (see Marsden et al.[14]). A recovery capital model looks at the strengths and needs a service user has over a range of domains beyond substance use. More resources across the domains would suggest greater likelihood of positive outcomes, and fewer resources suggest an indication for broader and more intensive interventions. Four types of recovery capital are identified:[15]

- human capital – e.g. skills, employment, mental and physical health;
- physical capital – e.g. tangible resources, housing, money;
- cultural capital – e.g. values, beliefs;
- social capital – e.g. relationships with others.

Those who have more strengths and resources (recovery capital) may be more likely to achieve their desired outcomes with little or no professional input.[16] Indicators for more intensive interventions include: longer problem duration, injecting drug use, substance dependence, unsuccessful independent attempts to change, multiple

substance misuse problems, multiple co-occurring problems, fewer individual strengths and less access to resources. An additional consideration is that people may have substantial substance misuse problems but at the present time are only ready or able to access and engage with less intensive interventions (e.g. needle exchange interventions for injecting drug use).

The intensity of the PSI should be more directly related to the severity of the substance misuse problem than to the severity of the health and other consequences of the substance use. For example, someone experiencing an extreme medical consequence of one-off use of a substance may be able to make desired changes without formal treatment.

It seems likely that most NPS use is infrequent, largely remains within the control of the individual and is associated with a low risk of harm.[17] Nonetheless, some NPS are injected and the majority of NPS have reported incidents of serious associated acute and chronic harms. The repeated use of some NPS can lead to dependence and for some, such as GHB/ GBL, acute withdrawal can be a medical emergency.

Box 2.1 lists the recommended as pragmatic indicators for a referral to drug treatment services, which will include PSIs.

Box 2.1. *Indicators for a referral to drug treatment services and PSIs*

- Current injecting of any substance;
- Self-report of inability to make changes to NPS use when attempted;
- Repeated presentation(s) with drug-related harm (psychological, social or physical);
- Self-identification of needing specialist help or request for referral to drug treatment services.

2.3. Settings for the delivery of PSIs

The intensity of the PSI delivered will vary across the settings in which they are offered. Some PSIs require additional or specialist competences to deliver them, whereas mutual aid, for instance, is a peer-led intervention and so is not dependent on particular settings for its delivery (and therefore is not discussed further in this sub-section).

2.3.1. Settings for lower-intensity PSIs

In non-drug treatment settings, where NPS use, or problematic use, has been identified during a clinical interaction with a service user, the offer of brief advice and information may be helpful. Such non-drug treatment settings include general practice, emergency departments, primary and secondary care mental health services, sexual health clinics and HIV services, in addition to other services where people may present with acute problems related to NPS use.

There is evidence that NPS use has a higher prevalence in people attending sexual health services[18] and HIV treatment services.[19] These services (and others with service users with known higher prevalence rates of NPS use) have an appropriate opportunity actively to ask about NPS use as part of their normal clinical assessment process. These non-drug treatment services that work with service user groups with a higher prevalence of NPS use, as an additional level of opportunistic intervention beyond offering brief advice and information, should also develop the relevant skills and competences and should offer brief interventions (BIs), referring individuals on for additional support, if needed.

Numerous studies report people living with HIV have a higher prevalence of NPS use (as will be discussed below) and there are concerns about the additional health and viral transmission risks NPS use may pose. People living with diagnosed HIV typically have frequent medical review appointments at HIV treatment services. These service contacts provide a valuable opportunity for similar appropriate questions on NPS use, asked routinely or targeted as appropriate; and the offer of brief advice and information and, if suitable, brief interventions.

Because of high levels of presentations related to substance use, some EDs have staff with skills to provide a brief intervention. Similarly, because there are high levels of substance misuse among people accessing mental health services,[20] these services often have staff with additional competences ('dual-diagnosis workers') to provide higher-intensity drug interventions in combination with mental health interventions.

2.3.2. Settings for higher-intensity PSIs

Higher-intensity PSIs, structured drug treatment and formal psychological therapy are likely to be delivered in community or residential drug treatment services.

There may be benefits in locating the delivery of higher-intensity PSIs in specific non-drug services where presentation with problematic NPS use is frequent and associated with other health or social problems. This may encourage engagement in drug treatment, by minimising any perceived stigma involved in attending drug treatment services. There may also be merit in developing specialist hybrid services for specific populations with co-occurring needs. For example, innovative services where drug treatment and psychological therapy are provided in settings such as sexual health services with a high level of presentation of co-occurring sexual health problems, problematic NPS use and in some cases psychological problems.

These differing levels of intensity of interventions will be reflected in the increasing specialised competences that the health professionals delivering them will have. All levels of intervention must be delivered within an appropriate governance framework with more intensive PSIs requiring specific supervision.[8]

Recommendation A stepped care model of interventions for NPS use should be available to service users across a treatment system, with referral pathways between the various services where service users are likely to present. It is recommended that the settings listed in Table 2.2 offer *a minimum* level of PSI. Each intervention is described in greater detail below.

Table 2.2. Minimum recommended levels of PSI in settings dealing with NPS use

Setting	Minimum level of PSI
General practice	Availability of brief advice and information
Emergency department	Availability of brief advice and information
Sexual health services	Availability of brief advice and information plus brief intervention
HIV services	Availability of brief advice and information plus brief intervention
Mental health services (including primary and secondary care psychological therapy services)	Availability of brief advice and information plus brief intervention *(Some services may have 'dual diagnosis workers' with additional competences to provide structured drug treatment)*
Drug treatment services	Availability of brief advice and information, brief intervention, structured drug treatment, formal psychological therapy, facilitated access to mutual aid. Access to assessment for residential drug treatment

All non-drug treatment services should offer referral to drug treatment services, as indicated in Box 2.1.

2.4. Lower-intensity PSIs

Lower-intensity PSIs can be divided into two main interventions: provision of brief advice and information; and provision of brief interventions. The published evidence that underlies this for drug users mainly relates to the provision of brief interventions. However, recommending the provision of brief advice and information is a considered and pragmatic approach that takes account of wider evidence on brief advice and is based on what is considered a minimum approach to addressing the basic health needs of NPS users attending non-drug treatment services. Brief interventions, derived mainly from the principles of motivational interviewing, are NICE recommended. They are also opportunistic interventions used in non-drug treatment settings with people who have little or no contact with drug treatment services. Winstock and Mitcheson recommend brief interventions for the majority of NPS users, whose use would be in the lower severity range. Provision of brief advice and information and brief interventions is also commonly recommended for risky drinking and alcohol use problems.[7,8,21]

Lower-intensity PSIs (brief advice and information, and brief interventions) may be carried out by health professionals outside of the substance misuse treatment field who have identified problematic substance use in the course of a consultation for another problem or after routine or opportunistic screening. Lower-intensity PSIs may take no longer than a few minutes, perhaps forming part of a wider conversation about a health problem. Typically, lower-intensity PSIs for substance use involve:

- identification of substance use (and any related problems);
- personalised feedback;
- the offer of information on how changes might be made if the service user decides to take up the advice.

The information may include a short information leaflet or reference to reliable internet resources. Lower-intensity PSIs can be effective at reducing the risks and harms associated with substance use.[4] The user's desired outcome is more likely to be a reduction in drug-related harms than abstinence. Lower-intensity PSIs are more likely to be effective when users perceive they have a problem (or reason to change) and believe that they can make a change.

All health professionals should already have the competences required to deliver brief advice and information. Clinicians could adopt a key element of motivational interviewing, which has a very strong evidence base for its effectiveness as substance use intervention, known as the 'elicit, provide, elicit' strategy (see Figure 2.2).[22]

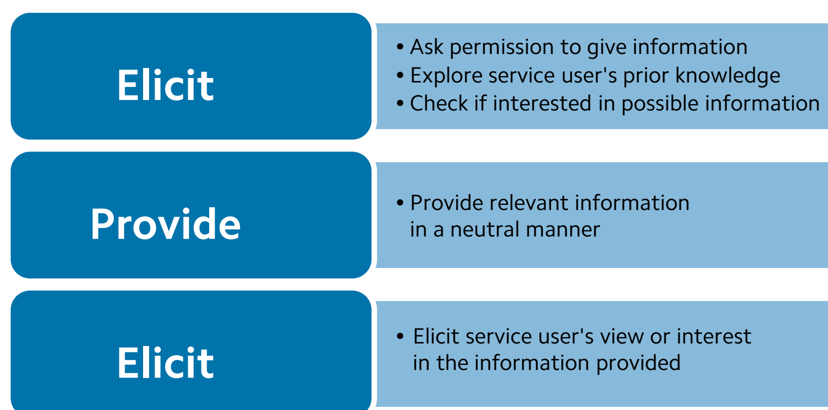

Figure 2.2. *A framework for brief advice and information*

Brief interventions offer structured advice on behaviour change in the context of a warm, reflective, empathic and collaborative approach by the practitioner. While this, too, is likely to require no more than the competences expected of any healthcare professional, a commonly used structure for BI across the substance misuse field is FRAMES (Box 2.2).[23]

Box 2.2. *FRAMES: a framework for brief interventions*

Identification of NPS use (and any related problems) followed by:

- **F** Feedback on personal risk – from screening, medical tests or clinical interview give personalised feedback on the person's current and likely substance-related problems
- **R** Responsibility and choice – emphasise the service user's responsibility for and choice in making any changes
- **A** Advice to change – give clear advice to change substance use
- **M** Menu of options – offer a variety of strategies or options
- **E** Empathy – a warm, reflective and understanding style of delivering brief intervention is more effective
- **S** Self-efficacy and optimism – build confidence by affirming what the service user has already done or some aspect of strength

Box 2.3. *Example of a brief intervention based on the FRAMES model*

Health worker (HW): All the tests we've run are fine and I'm happy for you to go now. I've got a few minutes; before you go, would you want to know some more about how to perhaps avoid something like this in the future? **(Asking permission)**

Service user (SU): Yes, okay, if you like.

HW: You mentioned to me earlier you were using G [GBL] pretty much every weekend of late? Did I get that right? **(Brief history)**

SU: Yeah, every weekend for a couple of months now, more often than it used to be.

HW: What would a typical weekend be like? **(Open-ended question/brief history)**

SU: Can vary. Depends who I'm with and what we are doing.

HW: This weekend – tell me, if you will, about this weekend. **(Open-ended question)**

SU: This weekend was a pretty big one: it was my friend's birthday. We were partying then clubbing, then we hooked up with a few other guys and went on to another club.

HW: So you came here to A&E early this morning, Sunday. When did you start?

SU: Early Saturday night, at a friend's place. We had a few drinks then started with a couple of cap-fulls, then just before we all left for the club we had a few more. I guess before we left I'd had about four or five cap-fulls and a few vodkas, not so much by that stage as I knew it was going to be a long night.

HW: You were thinking ahead, pacing yourself. Good for you. (Affirmation)

SU: Then at the club we were having a cap-full in water every so often; we were there till about 3am so probably I'd have had another four. We left there and went on to another club with these other three guys we met. There was a lot of it going around between us there; I don't know really how much I had. We started taking their stuff as we'd run out. Then five or six of us went to this guy's flat. I think the idea was … was, it would be a, you know, party. There was other stuff too like crystal meth, these guys were taking but I wasn't keen – I've had a couple of bad times with that before.

HW: So you've had a bad time with crystal meth before; now you're keeping away from it. That's good to hear. **(Affirmation)**

SU: That's where we had some more G and some more vodka. And then, I don't really know, then I was with the ambulance crew.

HW: So from what you've said it sounds like your use of G has been pretty regular over the last few months and maybe increasing. This weekend was a big one, as you say. It's likely the increasing amount and the combination with alcohol led to you being unconscious. It's good your friends called an ambulance to get you here. **(Feedback)**
You mentioned you are staying away from crystal meth because of some problems you'd had. Would you be interested to hear about the kinds of problems we see with G use like you've described? **(Asking permission)**

SU: Well I thought I was pretty clued up, but maybe I should.

HW: With G one of the big problems, even for experienced users, is that it can only need a very small amount, one or two more mils, before someone is overdosed. Even more of an issue if you're not entirely sure how strong the stuff you're taking is. Overdose is linked to vomiting, seizures, disorientation, memory loss, agitation, mood swings and collapse – at more severe levels being unconscious and coma. The other feature of G is its potential for dependence, when taking it regularly turns into not being able to go without, taking it daily even throughout the day. Once dependent, stopping can be pretty difficult and in some cases stopping suddenly can lead to serious medical emergencies. **(Feedback)**
It's of course up to you what you do with this kind of information, I'm just letting you know how your current pattern of G use might be linked to some health risks or problems that could develop. **(Responsibility)**

SU: I knew a fair bit of that, but some of it, like getting dependent, would concern me. I don't think I'm getting there yet though.

HW: No, you're right, it sounds like you can still keep your use to the weekends. The best way you can avoid something like getting dependent and some of the other problems would be to cut down or stop your use. **(Advice)**
In terms of being safer, stopping using G would be the safest option. If that doesn't feel like something you could do just now, not mixing with alcohol would make problems like the ones that brought you here less likely. If you do use, using less and knowing how much you're using would help. Some guys use something to measure their G, like a pipet. Its good that you use with friends and you take care of each other if needed. **(Menu of options)**

SU: I'm not sure stopping is what I want right now, but I'd already been a bit concerned about using so often.

HW: You could try having some weekends not using? It sounds like that's something you've managed before. Plus you said how you'd made previous changes like with crystal meth. **(Self-efficacy)**

SU: Yes and I've got friends who don't use G and stuff and I've not been spending much time with them lately, which isn't what I want.

HW: Is there anything more you'd like me to help with? I have the details of a website that has the information I just spoke about if you'd like it? I'll leave you this card with the details of a local service just in case you want some more expert help. I've heard good things about them and helping guys with problems with G.

Recommendations from alcohol treatment suggest that simple BI can be enhanced by including goal-setting (e.g. start date and daily or weekly limits of use), written self-help materials for the service user to take away (this may contain more detailed information on consequences of substance use and tips on cutting down) and arrangements for follow-up monitoring.[24]

The World Health Organization has developed a manual on brief interventions in substance misuse for primary care.[25] The manual draws on components of motivational interviewing and the FRAMES model. Although the manual was not developed for, or tested with, NPS specifically, it does cover a range of substances, including amphetamine-type stimulants. The manual provides clear information on how to deliver brief interventions.

An example of a brief intervention based on the FRAMES model is given in Box 2.3.

Recommendation It is recommended that health professionals who, in the course of contact with service users, identify 'lower severity' NPS use, offer brief advice and information or a brief intervention, following a recognised format, focusing on making changes to substance use with the aim of improving health outcomes.

2.5. Higher-intensity PSIs

2.5.1. Structured drug treatment

Structured drug treatment comprises two or more treatment sessions, each lasting half an hour or longer, applying a single or range of psychosocial approaches, commonly including motivational interviewing. Structured drug treatment may range from an extended form of brief intervention, sometimes known as extended brief intervention,[21] to a more ongoing regular set of treatment sessions. Structured drug treatment of any duration includes the setting and evaluation of specific goal(s) relating to a change in substance use.

Structured drug treatment should follow from a more comprehensive assessment of needs and resources that has led to intervention based on a care plan.[24] More advanced competences, of accreditation standard, in these approaches will be required for effective delivery, along with supervision and an appropriate governance framework.[8] Structured drug treatment may be delivered as individual psychological therapy or as group-based interventions.

There is evidence that the outcomes of drug treatment (all drug treatment, not only PSIs) can be enhanced with the use of mapping tools.[26] Mapping tools are not in themselves a psychosocial intervention but a vehicle that can enhance the effective delivery of treatment. Mapping tools employ a structure known as 'node link mapping' to visually convey key elements for a structured conversation derived from evidence-based PSIs. For more detailed information and examples of mapping tools for drug treatment see *Routes to Recovery via the Community*.[27]

The most relevant research findings relate to PSIs for various forms of stimulant use. Knapp et al., in a Cochrane review, report that interventions based on cognitive

behavioural, contingency management and community reinforcement approaches appear to be the most effective.[10] Knapp et al. argue that a comprehensive treatment package drawing on these three models may be required for better outcomes, given the multidimensional nature of stimulant dependence. They further argue that for sustained outcomes, treatment needs to support service users to make effective changes to their lives, including abstinence from stimulant use, the ability to work and the ability to maintain successful relationships. A focus on narrow, short-term goals such as reductions in amount or frequency of use is of little benefit in achieving sustained change.[10]

Recommendation It is recommended that structured drug treatment is offered to service users with 'higher severity' problems relating to NPS use. Structured drug treatment will be based on an assessment of needs and strengths and on a care plan which is reviewed regularly. The intervention will draw on evidence-based psychosocial approaches and is likely to include motivational interviewing.[9] As a minimum, structured drug treatment should include: goal setting and planning, feedback and monitoring, and developing social support.[6] The largest amount of reported evidence for structured drug treatment is for cognitive-behavioural therapy (CBT), contingency management (CM) and the community reinforcement approach (CRA).[10] Specific competences to deliver such interventions, supervision and an appropriate governance framework are required.

2.5.2. Formal psychological treatment

Formal psychological treatment is likely to be effective for people with higher-severity and dependent NPS use. Formal psychological treatment is particularly relevant where a service user has a co-occurring common mental health problem[4] or other psychological problems. Formal psychological treatment usually consists of a planned, time-limited series of sessions. The intervention will be grounded in a psychological formulation, derived from a process of assessment and evaluated using formal or informal outcome measures. The competences required to deliver this intensity of intervention will be more advanced – of professional registration standard – and a governance and supervision structure will be needed.[28] Formal psychological treatment may be delivered as individual therapy or as a group-based intervention. It is likely to draw on one or more of the evidence-based psychological therapy models listed below and may be combined with other evidence-based interventions for psychological problems.

The aims of formal psychological treatment are likely to be a combination of changes: to the substance use, to the psychological problems, but also in related domains (e.g. health, social functioning, criminal justice).

There are high levels of co-occurring mental health problems in drug treatment populations[20] and it can be assumed this would be similar for dependent users of NPS.

Some NPS users may have other co-occurring psychological difficulties; for example, there are reports of problematic NPS use associated with psycho-sexual problems.

Treatment services need to be able to screen, assess and provide treatment for these co-occurring difficulties.

Whilst NICE[4] recommends CBT to treat co-occurring mental health problems, the complexity of the presenting psychological difficulties may limit the impact of these approaches. Other approaches may be required for psycho-sexual problems.

For patients with complex needs, formal psychological treatment may be complemented by a formulation-based approach.[28]

A psychological formulation is a hypothesis about a person's difficulties and integrates a broad range of biopsychosocial causal factors which link theory with practice to guide the intervention. It is individually determined and may draw upon a range of psychological models to achieve an effective treatment plan.

A psychological formulation can integrate both the substance use behaviour and the co-occurring mental distress in a way that seeks to reveal the function of the substance use for the service user. It can also include consideration of other psychological and behavioural factors, such as sexual behaviour.

A formulation-based approach can incorporate personal meaning and be constructed collaboratively with service users and their care teams.

Some key features of a formulation are that it:

- summarises the service user's core problems;
- suggests how the service user's difficulties may relate to one another, by drawing on psychological theories and principles;
- aims to explain, on the basis of psychological theory, the development and maintenance of the service user's difficulties, at this time and in these situations;
- indicates a plan of intervention which is based in the psychological processes and principles identified;
- is open to revision and reformulation.

A distinguishing characteristic of psychological formulation is its multiple-model perspective – it integrates theory and evidence from a range of psychological models as well as biological, social/societal and cultural domains.

The incorporation of this multiple-model perspective may have particular value in working with service users from marginalised and stigmatised populations, as it explicitly incorporates culture-specific issues.

For example, a recent report[29] describes the association of NPS use and sexual behaviours, often referred to as 'chemsex'. As detailed in Part III of this publication, contemporary research has highlighted the frequent use of NPS by men who have sex with men (MSM) in the context of sex. A proportion of this behaviour has also been linked to drug-related and sex-related harms. Sex under the influence or intoxication of substances with the potential for associated harm is by no means a new phenomenon, however.

Bourne et al.[29] suggest some NPS offer a specific range of psychological and physical sex-enhancing effects. Where sex and NPS use have, over time, become powerfully associated for an individual who has developed problems, a combined approach to treatment is likely to be required. With a theoretically grounded psychological formulation identifying motivations, meanings and values associated with sexualised drug use, individualised for that service user, a psychological formulation is a basis for a proposed psychological intervention, drawing on evidence-based models of psychological therapy. A small number of studies in the US have looked at the impact of psychological interventions on condom-less sex among methamphetamine-using MSM. Combined cognitive behavioural and CM interventions have shown a positive impact on changing drug use and sexual behaviours among this population.[30,31] Working with the same population, however, Rajasingham et al.[32] suggest that CM fails to address service users' mental health needs or to develop post-intervention relapse prevention plans. A review of three randomised controlled trials (RCTs) examining the outcomes of CBT interventions and HIV risk behaviours among substance-misusing MSM found that while CBT did reduce unprotected anal intercourse in this group, it was unclear whether CBT was more effective than less intensive interventions or mere assessment.[33]

Recommendation It is recommended that formal psychological therapy is offered to people with higher-severity and dependent NPS use, and in particular those with co-occurring psychological problems. Formal psychological therapy is derived from a comprehensive assessment, based on a psychological formulation and informed by one or more evidence-based psychological therapy models.

Recommendation It is recommended that higher-intensity PSIs (structured drug treatment and/or formal psychological therapy) are offered to service users where medically assisted detoxification is part of the recommended treatment. Unless detoxification is undertaken as an emergency, higher-intensity PSIs, including motivational interviewing, should be offered before detoxification. Following detoxification, it is essential that higher-intensity PSIs, typically including a relapse prevention model, is offered. Service users completing detoxification may also benefit from formal psychological therapy for any co-occurring psychological problems such as common mental health problems or psycho-sexual problems.

2.6. Residential psychosocial treatment

Residential treatment is defined by the controlled environment where treatment takes place. It generally involves one or more evidence-based high-intensity psychological interventions and requires the same level of competence and governance as the higher-intensity PSIs described in section 2.5. Residential treatment may be preceded by medically assisted detoxification for safe withdrawal from specific substances (see section 1.8).

Service users live within the treatment service (or very nearby) for the duration of the treatment. Residential treatment is considered a more intense form of treatment, often requiring several hours per day of treatment engagement over a minimum

period of typically 12 weeks. The location of the treatment service is generally a distance away from the service user's usual home. Residential treatment is recognised as an important option; however, there is debate around the precise indications for its use and the evidence base is currently far from clear. Almost without exception, the explicit aim of residential treatment is long-term or lifetime abstinence from all substances. Residential treatment is therefore not appropriate for people who are not prepared for this treatment aim.

Broadly, the indications for residential treatment are:

- multiple co-existing psychological, physical and/or social problems;
- poly-drug dependence;
- optimised community treatment has not been effective
- the service user has a treatment goal of long-term abstinence.[4]

Recommendation It is recommended that service users with significant physical, psychological and/or social problems associated with NPS dependence (or use of high severity), who are aiming for long-term abstinence and who have been unable to achieve this in effective community treatment (or who would be highly unlikely to be able to do so), have access to residential treatment, including, where necessary, prior medically assisted detoxification. On successful completion of residential treatment, relapse prevention support should be offered to help service users maintain changes. Service users who leave residential treatment before its completion should be promptly offered support to minimise any return to substance use and minimise the risk of overdose.

2.7. Mutual aid

There is a long tradition of mutual aid in the substance misuse field. Perhaps the best-known are Alcoholic Anonymous (AA) and Narcotic Anonymous (NA), sometimes known as 12-step groups. More recently other forms of mutual aid have been developed, including SMART groups where the approach is derived from CBT. There is a strong evidence base for the outcomes from mutual aid (the research has primarily been with 12-step groups).[34]

Mutual aid is not a professionally delivered treatment. There is, though, evidence of the benefit of health professionals proactively supporting service users' engagement with mutual aid, often referred to as facilitating access to mutual aid (FAMA); therefore NICE recommends that services routinely provide information on the benefits of mutual aid to service users with higher severity and dependent substance use problems.[4,7] Public Health England has produced a guide to FAMA.[35] In some of the major UK cities there are specific 12-step groups primarily attended by people with current or former problems with some NPS or club drugs such as methamphetamine.

Recommendation It is recommended that service users with higher-severity and dependent NPS use are routinely offered information about mutual aid. This includes

service users completing residential treatment. Where service users show an interest in engaging with mutual aid, it is recommended that additional support along the lines of facilitated access is offered. Mutual aid as a treatment option should be revisited periodically where desired outcomes have not been achieved.

2.8. Models for specific psychosocial approaches

Higher-intensity PSIs for the treatment of substance misuse problems, in the form of structured drug treatment, formal psychological therapy and many of the approaches used in residential treatment, are derived from specific psychological therapy models. The main evidence-based models are described only briefly here, but references are given to sources of more detailed information and to treatment manuals.

2.8.1. Motivational Interviewing

Ambivalence about changing substance use behaviour is common, perhaps the norm, even for people actively seeking treatment. Motivational interviewing as an approach offers a framework for helping people resolve ambivalence to changes to their substance use. Motivational interviewing and its more manualised variant motivational enhancement therapy (MET) have a robust evidence base across a wide range of substances.[4,7] The use of motivational interviewing is likely to be a part of brief interventions and the early part of structured treatment. A framework for the delivery of competence-based motivational interviewing is described in *Routes to Recovery: Psychosocial Interventions for Drug Misuse*.[13]

2.8.2. Network and environmental therapies

Network and environmental therapies are a range of psychological approaches which seek to utilise social contextual reinforcers to promote and sustain change in substance use. This often involves enlisting the support of (non-using) partners, families or peers. Behavioural couples therapy (BCT) is recommended by NICE for the treatment of drug misuse.[4,7] Notably, there is specific evidence for BCT with lesbian and gay service users in the treatment of alcohol problems.[36] Network and environmental therapies are recommended for the treatment of alcohol problems.[4,7] The widely recognised importance of social support in achieving positive outcomes for drug problems is reflected in the recommendations made by NICE in *Behaviour Change: Individual Approaches*.[6]

Variants of network and environmental therapies with specific recognition in the treatment of substance misuse are social behaviour network therapy (SBNT), the community reinforcement approach (CRA) and behaviour couples therapy (BCT). On SBNT, see Copello et al.[37]; on CRA see Miller et al.[38]; on BCT see O'Farrell and Fals-Stewart.[39]

2.8.3. CBT-based relapse prevention

Relapse prevention (RP) is a commonly used psychological approach in substance misuse treatment[11] and is recommended for the treatment of alcohol problems.[4,7] However, CBT focused only on drug misuse was not recommended in the NICE guidance on drug misuse.[4] RP aims to help people make and sustain changes to substance misuse through the identification of thinking and behavioural patterns that typically precede an individual's substance use. RP is considered particularly relevant in helping people sustain changes to substance misuse once they have achieved them, including following medically assisted detoxification, a phase of treatment often referred to as aftercare. For a description of CBT-based RP models, see Marlatt and Donovan[40] and Mitcheson et al.[12]

Inevitably, innovative developments may take time to be included in high-level meta-analyses. It is worth noting the current attention to what are often referred to as 'third-wave CBT models'. These contemporary developments include mindfulness-based interventions (MBIs), acceptance and commitment therapy (ACT) and dialectical behaviour therapy (DBT). In a systematic review of evidence, Chiesa and Serretti report that MBIs can reduce the use of a range of substances, including stimulant drugs.[41] Zgierska and Marcus[42] note that the combined findings of early studies of MBIs suggest these may be efficacious for substance misuse problems. Of note, Smout et al.[43] conducted a preliminary RCT of ACT for methamphetamine use disorders. While it had no advantage over CBT, Smout et al. describe it as a viable intervention for this population. Zgierska and Marcus note the strength of positive evidence for MBIs with common mental health problems and conclude that they are therefore of value for service users with co-occurring substance misuse and mental health problems.[42]

2.8.4. Contingency management

Contingency management has a strong evidence base from numerous research trials, carried out primarily in the US, focusing on stimulant use. UK programmes are currently uncommon outside RCTs. CM is one of the psychological interventions recommended for the treatment of drug misuse by NICE.[4] CM is used to reduce substance use by the provision of tangible (often monetary or material) rewards for the achievement of verifiable behavioural goals, such as negative biological drug screen tests. A framework for the delivery of CM is described in *Routes to Recovery: Psychosocial Interventions for Drug Misuse*.[13]

2.8.5. Psychodynamic therapy

There is no specific literature on the evidence for psychodynamic therapies for the treatment of NPS problems. NICE[4] did not recommend psychodynamic therapy focused on the treatment of drug misuse for people who misuse cannabis or stimulants or those receiving opioid maintenance treatment. National Treatment Agency for Substance Misuse[11] reported one study (of limited strength) where court-enforced counselling resulted in reduced cocaine use.[44]

References

1 Strang J, Chair of the Expert Group. *Recovery-Orientated Drug Treatment. An Interim Report*. National Treatment Agency for Substance Misuse, 2011.

2 Amato L, Minozzi S, Davoli M, Vecchi S. Psychosocial and pharmacological treatments versus pharmacological treatments for opioid detoxification. *Cochrane Database Syst Rev*. 2011 Sep 7;(9):CD005031. doi: 10.1002/14651858.CD005031.pub4.

3 Orford J. Asking the right questions in the right way: the need for a shift in research on psychological treatments for addiction. *Addiction*. 2008 Jun;103(6):875–85; discussion 886–92. doi: 10.1111/j.1360-0443.2007.02092.x.

4 National Institute for Health and Clinical Excellence. *Drug Misuse: Psychosocial Interventions* (Clinical Guideline 51). 2007.

5 Department of Health (England) and the Devolved Administrations. *Drug Misuse and Dependence: UK Guidelines on Clinical Management*. Department of Health,the Scottish Government, Welsh Assembly Government and Northern Ireland Executive, 2007.

6 National Institute for Health and Clinical Excellence. *Behaviour Change: Individual Approaches* (PH 49). 2014.

7 National Institute for Health and Clinical Excellence. *Alcohol Use Disorders: Harmful Drinking and Alcohol Dependence* (Clinical Guidance 115: Evidence Update). 2013.

8 National Institute for Health and Clinical Excellence. *Quality Standard for Drug Use Disorders* (Quality Standard 23). 2012.

9 Smedslund G, Berg RC, Hammerstrøm KT, SteiroA, Leiknes KA, Dahl HM, Karlsen K. Motivational interviewing for substance abuse. *Cochrane Database Syst Rev*. 2011 May 11;(5):CD008063. doi: 10.1002/14651858.CD008063.pub2.

10 Knapp WP, Soares BG, Farrel M, Lima MS. Psychosocial interventions for cocaine and psychostimulant amphetamines related disorders. *Cochrane Database Syst Rev*. 2007 Jul 18;(3):CD003023

11 National Treatment Agency for Substance Misuse. *The Effectiveness of Psychological Therapies on Drug Misusing Clients*. 2005.

12 Mitcheson L, Maslin J, Meynen T, Morrison T, Hill R, Wanigaratne S. *Applied Cognitive and Behavioural Approaches to the Treatment of Addiction: A Practical Treatment Guide.* Wiley-Blackwell 2010.

13 Pilling S, Hesketh K, Mitcheson L. *Routes to Recovery: Psychosocial Interventions for Drug Misuse. A Framework and Toolkit for Implementing NICE-Recommended Treatment Interventions*. National Treatment Agency for Substance Misuse and British Psychological Society 2010.

14 Marsden J, Eastwood B, Ali R, Burkinshaw P, Chohan G, Copello A, Burn D, Kelleher M, Mitcheson L, Taylor S, Wilson N, Whiteley C, Day E. Development of the Addiction Dimensions for Assessment and Personalised Treatment (ADAPT). *Drug Alcohol Depend*. 2014 Jun 1;139:121–31. doi: 10.1016/j.drugalcdep.2014.03.018.

15 HM Government. *The Drug Strategy: 'Reducing Demand, Restricting Supply, Building Recovery: Supporting People to Live a Drug Free Life'*. 2010.

16 Orford J. *Power, Powerlessness and Addiction.* Cambridge University Press, 2013.

17 Winstock AR, Mitcheson L. New recreational drugs and the primary care approach to patients who use them. *BMJ*. 2012 Feb 15;344:e288. doi: 10.1136/bmj.e288.

18 Hunter LJ, Dargan PI, Benzie A, White JA, Wood DM. Recreational drug use in men who have sex with men (MSM) attending UK sexual health services is significantly higher than in non-MSM. *Postgrad Med J.* 2014 Mar;90(1061):133–8. doi: 10.1136/postgradmedj-2012-131428.

19 Colfax G, Guzman R. Club drugs and HIV infection: a review. *Clin Infect Dis*. 2006 May 15;42(10):1463–9.

20 Weaver T, Madden P, Charles V, Stimson G, Renton A, Tyrer P, Barnes T, Bench C, Middleton H, Wright N, Paterson S, Shanahan W, Seivewright N, Ford C. Comorbidity of substance misuse and mental illness in community mental health and substance misuse services. *Br J Psychiatry*. 2003 Oct;183:304–13.

21 Heather N, Lavoie D, Morris J. *Clarifying Alcohol Brief Interventions: 2013 Update.* Alcohol Academy, 2013. http://www.alcoholacademy.net.

22 Miller WR, Rollnick S. *Motivational Interviewing: Helping People Change* (3rd edition). Guilford, 2013.

23 Miller WR, Sanchez VC. Motivating young adults for treatment and lifestyle change. In: Howard G, ed. *Issues in Alcohol Use and Misuse in Young Adults*. University of Notre Dame Press, 1993.

24 National Treatment Agency for Substance Misuse. *Care Planning Practice Guide.* 2006. http://www.nta.nhs.uk/uploads/nta_care_planning_practice_guide_2006_cpg1.pdf.

25 Humeniuk RE, Henry-Edwards S, Ali RL, Poznyak V, Monteiro M. *The ASSIST-Linked Brief Intervention for Hazardous and Harmful Substance Use: Manual for Use in Primary Care.* Geneva, World Health Organization, 2010.

26 National Treatment Agency for Substance Misuse. *The International Treatment Effectiveness Project: Implementing Psychosocial Interventions for Adult Drug Misusers*. 2007.

27 Day E. *Routes to Recovery via the Community*. Public Health England, 2013.

28 Division of Clinical Psychology, British Psychological Society. *Good Practice Guidelines on the Use of Psychological Formulation.* 2011.

29 Bourne A, Reid D, Hickson F, Torres Rueda S, Weatherburn P () *The Chemsex Study: Drug Use in Sexual Settings Among Gay and Bisexual Men in Lambeth, Southwark and Lewisham*. Sigma Research, London School of Hygiene and Tropical Medicine, 2014. http://www.sigmaresearch.org.uk/chemsex.

30 Lee NK, Rawson RA. A systematic review of cognitive and behavioural therapies for methamphetamine dependence. *Drug Alcohol Rev.* 2008 May;27(3):309–17. doi: 10.1080/09595230801919494.

31 Reback CJ, Larkins S, Shoptaw S. Changes in the meaning of sexual risk behaviors among gay and bisexual male methamphetamine abusers before and after drug treatment. *AIDS Behav.* 2004 Mar;8(1):87–98.

32 Rajasingham R, Mimiaga MJ, White JM, Pinkston MM, Baden RP, Mitty JA. A systematic review of behavioral and treatment outcome studies among HIV-infected men who have sex with men who abuse crystal methamphetamine. *AIDS Patient Care STDS.* 2012 Jan;26(1):36–52. doi: 10.1089/apc.2011.0153.

33 Melendez-Torres GJ, Bonell C. Systematic review of cognitive behavioural interventions for HIV risk reduction in substance-using men who have sex with men. *Int J STD AIDS.* 2013 Dec 18;25(9):627–35.

34 Weiss RD, Griffin ML, Gallop RJ, Najavits LM, Frank A, Crits-Christoph P, Thase ME, Blaine J, Gastfriend DR, Daley D, Luborsky L. The effect of 12-step self-help group attendance and participation on drug use outcomes among cocaine-dependent patients. *Drug Alcohol Depend.* 2005 Feb 14;77(2):177–84.

35 Public Health England. *Facilitating Access to Mutual Aid: Three Essential Stages for Helping Clients Access Appropriate Mutual Aid Support.* 2013. http://www.nta.nhs.uk/uploads/mutualaid-fama.pdf.

36 Fals-Stewart W, O'Farrell TJ, Lam W. Behavioural couple therapy for gay and lesbian couples with alcohol use disorders. *J Subst Abuse Treat.* 2009 Dec;37(4):379–87. doi: 10.1016/j.jsat.2009.05.001.

37 Copello A, Orford J, Hodgson R, Tober G. *Social Behaviour Network Therapy for Alcohol Problems.* Routledge, 2009.

38 Miller WR, Meyers RT, Hiller-Strumhofel S. The community reinforcement approach. *Alcohol Research Health.* 1999;23:116–21.

39 O'Farrell TJ, Fals-Stewart W. *Behavioural Couples Therapy for Alcoholism and Drug Abuse.* Guilford, 2006.

40 Marlatt GA, Donovan DM, eds. *Relapse Prevention: Maintenance Strategies in the Treatment of Addictive Behaviors* (2nd edition). Guilford Press, 2005.

41 Chiesa A, Serretti A. Are mindfulness-based interventions effective for substance use disorders? A systematic review of the evidence. *Subst Use Misuse.* 2014 Apr;49(5):492–512. doi: 10.3109/10826084.2013.770027.

42 Zgierska A, Marcus MT. Mindfulness-based therapies for substance use disorders: part 2. *Subst Abus*. 2010 Apr;31(2):77–8. doi: 10.1080/08897071003641248.

43 Smout MF, Longo A, Harrison S, Minniti R, Wickes W, White JM. Psychosocial treatment for methamphetamine use disorders: a preliminary randomized controlled trial of cognitive behavior therapy and acceptance and commitment therapy. *Subst Abus.* 2010 Apr;31(2):98–107. doi: 10.1080/08897071003641578.

44 Kletter E. Counseling as an intervention for cocaineabusing methadone maintenance patients. *J Psychoactive Drugs.* 2003 Apr–Jun;35(2):271–7.