NHS

National Treatment Agency
for Substance Misuse

Young people's specialist substance misuse treatment

Exploring the evidence

This document is supported by the
Department for Children, Schools and Families

The National Treatment Agency for Substance Misuse (NTA)

The NTA is a special health authority within the NHS, established by the Government in 2001 to improve the availability, capacity and effectiveness of treatment for drug misuse in England.

It works in partnership with national, regional and local agencies to:

- Ensure the efficient use of public funding to support effective, appropriate and accessible local services
- Promote evidence-based and coordinated practice, by distilling and disseminating best practice
- Improve performance by developing standards for treatment, promoting user and carer involvement, and expanding and developing the drug treatment workforce
- Monitor and develop the effectiveness of treatment.

The NTA has achieved the Department of Health's targets to:

- Double the number of people in treatment between 1998 and 2008
- Increase the percentage of those successfully completing or appropriately continuing treatment year on year.

It is now in the frontline of a cross-Government drive to reduce the harm caused by drugs and its task is to improve the quality of treatment in order to maximise the benefit to individuals, families and communities.

The NTA will be judged against its ability to deliver better treatment and better treatment outcomes for the diverse range of people who need it.

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Publication date
January 2009
Gateway number
10839
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Glossary

Aftercare
The support services available to young people who complete custodial or community sentences, and/or leave treatment. Specialist substance misuse treatment is among these services.

Brief interventions
A single-session intervention to encourage longer term treatment or self-reflection. Sessions last for up to one hour and involve general motivational interviewing techniques (see below).

Care plan
A document developed jointly by the practitioner, the young person, their parent or carer, and any other relevant professionals. It sets out the young person's goals, how they will be achieved, and who is responsible for taking particular action. The plan must meet the young person's individual needs and is reviewed regularly to ensure it remains relevant.

Class A drugs
Drugs that are considered to be the most harmful, and which are controlled under the Misuse of Drugs Act 1971. They include heroin and cocaine.

Cognitive Behavioural Therapy (CBT)
A therapy that focuses on understanding the roots of problem behaviour. It can help young people to develop coping mechanisms for modifying and reducing such behaviour, and promotes rational belief as a way of achieving change and health.

Conduct disorder
A mental health term to describe young people who repeatedly violate the personal or property rights of others and the basic expectations of society. Only a GP can make a diagnosis of conduct disorder, usually when the symptoms continue for six months or longer.

Dual diagnosis
The combination of mental illness and drug/alcohol misuse.

Externalising symptoms
A group of mental health symptoms and conditions that are projected onto the environment, such as conduct disorder or attention deficit hyperactivity disorder (ADHD).

Harm reduction
A collective term for the policies, programmes and projects that aim to reduce the negative health effects associated with the use of psychoactive substances. It is a targeted approach that focuses on specific effects related to specific substances. 'Specialist harm reduction' is an NTA term for initiatives aimed at young people. The complexity of this intervention and the possibility of severe harm means it should be provided only by a specialist young people's treatment practitioner. In this document 'specialist harm reduction' relates to three specific areas: needle exchange for injecting drug users; immediate drug-related deaths; and physical injuries associated with substance misuse.

Internalising symptoms
A term used to group mental health symptoms and conditions directed towards the individual suffering from them, such as depression or anxiety.

Motivational interviewing
A client-centred counselling style, which encourages them to consider their personal values and goals, and to reflect on the risks associated with substance misuse.

Multi-dimensional family therapy
This uses a multi-systemic approach (see below) to address the risk factors and promote the protective elements that operate on many levels between young people, their families and other people in their lives, such as school teachers.

Multi-systemic therapy
Interventions that look at the individual, family, peer group, school and social networks associated with a young person's problems. It uses evidence-based, solution-focused interventions, such as strategic family therapy and CBT. Multi-dimensional family therapy is also based on this framework.

Psychoeducational
Intervention that focuses on the physiological consequences of substance misuse. The therapist works with the young person to understand the effects of substances and to make choices based on that understanding.

Psychosocial
Intervention that uses psychological and psychotherapeutic counselling and counselling-

based techniques to encourage behavioural and emotional change, and to promote lifestyle adjustments and coping skills. It also includes motivational interviewing, relapse prevention and interventions designed to reduce or stop substance misuse. Additional intervention addresses the impact of substance misuse on offending and education, employment or training.

Substance
The term for illicit and illegal drugs, alcohol, solvents (or volatile substances), except for tobacco.

Therapeutic alliance
The collaborative bond between a therapist and a young person. In family interventions it is between the therapist and the young person's parents.

Therapeutic community
A model of residential substance misuse treatment that uses positive peer role models and the peer community to promote social and psychological change. It may also use confrontational elements.

Transition
When a young person moves from one service to another. This can be from young people's services to adult services, residential services to community services, or specialist services to universal services.

Young people/young person
In this document, anybody under 18 years of age. In other documents, 'child' is sometimes used. Where statements have been extrapolated from these documents the term 'child' or 'children' is used.

Abbreviations
NTA: National Treatment Agency for Substance Misuse
NICE: National Institute for Health and Clinical Excellence
YJB: Youth Justice Board for England and Wales

Introduction

This report is aimed at professionals who provide specialist substance misuse treatment services for young people under 18 years old. The National Treatment Agency for Substance Misuse (NTA) defines young people's treatment as, "care planned medical, psychosocial or specialist harm reduction interventions aimed at alleviating current harm caused by a young person's substance misuse."

This report brings together evidence for effective treatment of substance misuse among young people aged 18 and under. It was developed from literature reviews and primary research published in peer review journals, which focus on substance misuse among this age range (see Methodology for details). The report has been produced as part of the Youth Alcohol Action Plan's commitment to improve alcohol treatment for young people (Department for Children, Schools and Families, Home Office and Department for Health, 2008).

The aim of the report is to synthesise the current evidence base specifically related to young people's substance misuse and suggest good practice points that arise from this. Practitioners and commissioners are encouraged to use the good practice points in the development of local specialist substance misuse services for young people.

Evidence of effectiveness

Young people's substance misuse is a relatively new area of academic study; traditionally studies have focused on vulnerabilities to substance misuse and education and prevention initiatives. Research on effective treatment interventions is still scarce but is growing both in quantity and quality. In the past good practice reports have been based on an extrapolation of adult based research and evidence in relation to working with young people in other areas of health or social care.

This guide is intended to:

- Familiarise practitioners with the evidence specific to young people and substance misuse
- Use this evidence to highlight and promote elements of good practice

The evidence selected for this report was chosen systematically from a thorough search of peer-reviewed published research papers and grey literature. Each piece of evidence was evaluated according to specific criteria designed to select the highest quality of research available. Two scales were used, which ranged in points from 0-5 with five being the highest score. Only those achieving grade 3 or above are included in this report. Further details about the strength of evidence and methodology for the systematic review are described in the appendix.

All the evidence used is based on research conducted specifically with young people under 18 years old (unless otherwise stated) ensuring that this report is geared to providing good practice points developed from work with young people.

Limitations to the evidence

Evidence specific to young people and substance misuse treatment is still scarce. There is too little research to make strong statements about definite treatment decisions, so the information provided is intended to be indicative of promising practice. This report does not have the same status as guidance published by the National Institute for Health and Clinical Excellence (NICE). The studies referred to in this report have been selected for their quality (see Methodology) but most of the topics can draw on only a handful of studies, or less, which is not ideal for making broad statements. Rather the evidence and the good practice points presented should be used to guide service development in the direction of the evidence based findings currently available.

Much more research needs to be done before firm statements can be made about what is, or is not, effective in young people's substance misuse treatment. It is not possible to find quality studies on some interventions. This does not mean they have no value, or that they do, they have not been thoroughly tested yet. Interventions that seem to be working well in your setting (i.e. there is local anecdotal evidence) should not be abandoned purely because they are not represented in this guide, but they should be treated with caution. This guide can be used to steer future interventions and developments but it is recognised that as research develops other types of intervention may well be added to the effectiveness portfolio.

Most of the research on young people and substance misuse has been conducted in North America, which is different from England both in

terms of culture and service provision. Throughout the report any evidence from the UK is stipulated. Generally research looks at those using 'substances' or 'alcohol and other drugs', this no doubt reflects the mixed substance use patterns of young people.

As ever, services should be re-appraised against new evidence as it is published. It is hoped that new findings can be brought to you in future years and that organisations can collaborate with UK research projects to develop the evidence base further. Research other than young people's substance misuse treatment is likely to be useful but falls outside the scope of this guide. This includes effectiveness of adult drug and alcohol treatment interventions and interventions to help young people who have high needs and multiple vulnerabilities.

Commissioning context

Health and social care services for young people are commissioned and developed by children's trusts in each local authority area in collaboration with local primary care trusts (PCTs). Depending on a young person's needs they will be offered services at a universal, targeted or specialist level.

- Universal – accessible by all young people, such as schools and family doctors
- Targeted – accessible by young people who are considered to be vulnerable or who have been identified as having needs that require some low intensity intervention and monitoring (such as social inclusion programmes)
- Specialist – accessible by young people with identified needs that cannot be met by universal or targeted provision (such as mental health services, specialist schools, in-patient services, substance misuse treatment services)
- Young people should have their needs identified and met in universal or targeted services wherever possible. However, specialist substance misuse treatment services should be offered to all young people whose substance misuse is currently significantly impairing their physical, psychological and/or social functioning, and who have been assessed as requiring treatment to change their substance misuse. This document is solely concerned with specialist substance misuse treatment interventions
- There are a number of policy documents that can support the commissioning of young people's specialist substance misuse treatment, including Department of Health (2007) *You're Welcome Quality Criteria* and National Treatment Agency (2008a) interim *Commissioning Young People's Specialist Substance Misuse Treatment Services*.

Providing specialist substance misuse treatment

Informed guidance and consensus about good practice suggests there are a number of conditions that should be met before providing specialist substance misuse treatment to young people. They are summarised below and a reference to more detailed documents is given.

- Assessment should always take place before an intervention
- Risk assessments are a vital first stage in assessment
- Young people should have an individual care plan that addresses the needs identified in the assessment
- Multiple professionals and services may be required to meet young people's needs which are often complex, multiple and extend beyond the remit of specialist substance misuse services
- Care should be coordinated across services by an identified lead professional and in line with arrangements sent out in guidance on the Common Assessment Framework
- Young people have a right to be safeguarded from harm and as such child protection issues should be explored and addressed if identified
- Some young people can consent to their own treatment (i.e. when they are assessed as competent to do so). Others will require their parents' consent prior to treatment interventions
- Young people should be encouraged to allow parents and carers to participate in their treatment plans. However where this is not achievable young people can expect confidentiality from health care providers, though this may limit the service that they can receive due to consent issues.
- Young people should have their views taken into account. This is both in terms of the treatment they receive and the design and delivery of the service. These issues are explained in more depth in *Assessing Young People for Substance Misuse* (NTA, 2007a).

Treatment interventions

This section explores the current interventions that are specifically referred to in the evidence base, and are likely to be monitored by the NTA as specialist treatment. NTA definitions of types of specialist substance misuse treatment interventions for young people are shown in Box 3. Research studies have been grouped to explore the evidence base for each definition, where possible. Substance misuse treatment should only be undertaken by professionals who are trained in their delivery and who have access to professional supervision. They are intended to be delivered in a specialist substance misuse treatment setting for young people.

Overview of specialist substance misuse treatment

Substance misuse treatment for young people has consistently been shown to be effective in reducing substance misuse in medium-term outcome studies (Dasinger et al 2004, Dennis et al 2004, Farabee et al 2001, Godley et al 2004, Morral et al 2004, 2006, Ruiz et al 2005, and Waldron et al 2001). The treatment interventions used in these studies are wide ranging, from residential to community interventions, and demonstrate a number of techniques and combinations of techniques described in other sections of this report.

Different treatment interventions were compared to each other in these long-term outcome studies (see Study 1 and 2). No intervention was significantly better than any other, all were able to demonstrate effectiveness. However, sticking to an intervention model based on theoretical and empirical effectiveness has been shown to increase retention in substance misuse treatment programmes compared to simply the amount of time spent with a young person (Noel, 2006). There is little evidence on which treatment interventions best suit different young people (Godley et al, 2004).

Many young people were involved in these studies and they had a similar substance misuse profile to young people attending specialist substance misuse treatment services in England, i.e. predominantly cannabis and alcohol misuse, with some using other substances such as heroin and cocaine. Many were poly-substance misusers and all were in specialist treatment settings. The studies used large samples, the smallest being 114 young people, the largest over 1500, and looked at outcome measures after at least seven months from the start of treatment to 30 months after treatment commenced, with the majority considering outcomes at 12 month post initiation of treatment. In Scotland a range of community based specialist substance misuse interventions were studied and were able to demonstrate effectiveness over an eight month period (McIntosh et al, 2006). Two of the larger studies are illustrated in Study 1 and 2 to show the people who took part, the interventions that were compared and the major findings.

Treatment effectiveness studies are sometimes criticised for using manual-based programmes and skilled professionals, which do not reflect the reality of normal substance misuse treatment (Liddle et al, 2002). For this reason the studies by Farabee et al (2001) and Morral et al (2004, 2006) researched normal, widely available treatment approaches in the USA, rather than treatment setup for research purposes. These studies were still able to demonstrate treatment effectiveness.

In addition to reducing substance misuse the effectiveness of interventions has been demonstrated in a number of other outcomes:

- Reduced problem behaviour (McIntosh et al, 2006)
- Increased involvement in positive activities (McIntosh et al, 2006)
- Increased confidence and self-esteem (McIntosh et al, 2006)
- Improved academic attainment (Liddle et al, 2001),
- Reduced criminal activity (Henggeler, 2002; 2006)
- Improved mental health (Liddle et al, 2004)
- Improved family relationships (Liddle et al, 2004; McIntosh et al, 2006)
- Improved attendance at school (McIntosh et al, 2006)

Study 1: The Cannabis Youth Trial

The Cannabis Youth Trial (Dennis et al, 2004) recruited 600 young people and their families. The young people, aged 12-18, met Diagnostic and Statistical Manual of Mental Disorders-IV (DMS-IV) criteria for cannabis abuse or dependence. Some also had alcohol or other drug problems and/or mental health problems, but were excluded if these were dominant. However, among those recruited 95% had one or more problems in addiction to cannabis misuse and 84% had three or more additional problems related to other substances or mental health problems. Needs were measured using the Global Appraisal of Individual Need scale.

All the treatment interventions were provided in a community (outpatient) setting. Each young person was randomly allocated to one of five treatment conditions (none lasted over 90 days):

- Two sessions of individual motivational enhancement therapy and three sessions of group cognitive behavioural therapy over six to seven weeks (MET/CBT5)
- Two sessions of individual Motivational Enhancement Therapy and ten sessions of group Cognitive Behavioural Therapy over 12-14 weeks (MET/CBT12)
- Family Support Network (FSN) – MET/CBT12, plus six parent education group meetings, four therapeutic home visits, referral to self-help groups and case management to promote engagement in the process
- Adolescent Community Reinforcement Approach (ACRA), which combines operant conditioning, skills training and a social systems approach – ten individual sessions with the young person, four sessions with the parents (two whole family sessions) and some case management over 12-14 weeks
- Multi-Dimensional Family Therapy (MDFT) – based on linking reductions in drug and problem behaviour with changes in parenting practice and improved therapeutic alliance - 12-15 sessions (typically six with the young person, three with the parents and six with the whole family)

  Staff were experienced and highly trained clinicians (all were graduates, most had masters or doctoral degrees), but not accustomed to using manual guided therapy. All received weekly clinical supervision sessions.

Outcome measures were:

- Days of abstinence from cannabis, alcohol and other drugs, from the start of treatment to the 12-month follow-up date
- No drug or alcohol use in the last month leading to the 12-month review while living in the community in a non-controlled environment.

All five Cannabis Youth Trial interventions showed positive results in terms of increased number of days abstinent from cannabis, alcohol and other drugs over a 12 month period and no drug or alcohol use in the last month of the study. Outcomes were similar across the 5 interventions. Cost effectiveness was also examined as the costs of interventions varied widely. MET/CBT5, MET/CBT12 and ACRA were more cost effective than FSN and MDFT.

Good practice points

- Studies have shown that specialist treatment interventions are effective in reducing substance misuse among young people
- From the current evidence base, it is not possible to say which treatments are better than others in reducing substance use
- Using a specialist treatment technique that is evidence-based appears to reduce drop out rates
- Specialist treatment appears to bring benefits to areas of a young person's life beyond their substance misuse.

Study 2: The USA RAND Corporation study

The Rand Corporation study examined the effectiveness of ten adolescent substance misuse programmes (Morral et al, 2006). It involved a large number of young people (1,261 in the treatments being evaluated plus 284 comparisons) in three types of interventions:

- Long-term residential facilities, these had programmes that ran between six to12 months
- Short-term residential facilities, these had programmes that ran between 30-50 days; one was a specialist culturally specific service for Native Americans
- Community programmes, these varied in intensity from one to 12 hours' contact per week and tended to be a mixture of individual and group settings.

The programmes were chosen because they were thought to represent 'good practice' based on previous research and theoretical evidence. Needs were measured using the Global Appraisal of Individual Need scale.

Outcome measures were:

- No drug or alcohol use while living in the community in a non-controlled environment
- Substance problems
- Substance use frequency
- Illegal activities
- Emotional problems
- Days in a controlled environment, such as in custody or a closed residential facility

All the young people who presented for the programme could be included provided that they consented and that 12-month follow-up assessments were available. Rather than simply comparing the effectiveness of the programmes, which may not account for differences between young people attending the programmes, case-mix analysis was used. This used statistical procedures to look at the effectiveness of programmes in relation to a range of factors affecting young people using the same outcomes.

The treatment interventions were not found to differ significantly from each other in terms of effectiveness after case-mix analysis was conducted, however all of the treatments were found to be effective.

Specialist substance misuse treatment interventions for young people: NTA definitions

1. Pharmacological

These interventions include prescribing for detoxification, stabilisation and symptomatic relief of substance misuse as well as prescribing of medications to prevent relapse.

2. Psychosocial

These interventions use psychological, psychotherapeutic, counselling and counselling-based techniques to encourage behavioural and emotional change, the support of lifestyle adjustments and the enhancement of coping skills. They include motivational interviewing, relapse prevention and interventions designed to reduce or stop substance misuse, as well as interventions which address the negative impact of substance misuse on offending and attendance at education, employment or training.

3. Family

Interventions using psychosocial methods to support parents, carers and other family members to manage the impact of a young person's substance misuse, and enable them to better support the young person in their family. This includes work with siblings, grandparents, foster carers, etc. and can be provided even if the young person misusing substances is not currently accessing specialist substance treatment.

4. Specialist harm reduction

Specialist harm reduction interventions should include services to manage:

a. Injecting – young people need to be able to access specific injecting services, as adult services for injectors are too low threshold and will put young people in contact with adult drug-service users, both of which may put them at further risk of harm. These services could include needle exchange, advice and information on injecting practice, access to appropriate testing and treatment for blood borne viruses and participation in full assessment and other specialist substance misuse treatment services.

b. Overdose – advice and information to prevent overdose, especially overdose associated with poly-substance use, which requires specialist knowledge about substances and their interactions. This could include protocols with accident and emergency services to ensure that measures to identify and prevent future overdose are in place.

c. Accidental injury – protocols with accident and emergency services to ensure that measures to identify and prevent future substance misuse related accidental injuries are in place.

5. Residential treatment for substance misuse

Any specialist substance misuse intervention (as defined in 1-4 above) provided in a residential setting where the young person has been placed, away from their usual home, specifically in order to decrease levels of risk from substance misuse and to gain access to highly intensive young people's specialist substance misuse interventions.

1. Pharmacological

There is little evidence on pharmacological treatment with young people to manage substance misuse (Bukstein and Cornelius, 2006). This has been due to the very low numbers of young people requiring pharmacological management of substance misuse, and ethical and legal considerations of conducting drug trials with those under 18 years of age.

There are a number of approaches to using pharmacology with substance misusers:

- To treat withdrawal symptoms
- To provide substitution therapy
- To reduce craving and block effects of substances.

These approaches are widely used in adult populations and there is a substantial evidence base for them. Professionals should be familiar with NICE (2007a; 2007b; 2007d) and Department of Health (2007b) guidelines on the management of drug and alcohol use which provide a synthesis of the research and make recommendations.

These strategies can be adopted with young people but only with caution, as there are a range of factors which makes simple transfer of adult models to young people problematic. These include:

- Medications have not been tested in adolescent populations
- Young people tend to have shorter histories of substance use and have used lower levels for shorter periods
- Effects of the medication on physical and mental health of young people are uncertain
- Medications can themselves be misused and have potentially fatal consequences
- Young people's bodies are not fully developed, low body mass and underdeveloped organs may contribute to increased adverse effects
- The factors listed above make gaining the informed consent to treatment (from the parent or young person depending on competence) a complex but vital process.

In addition young people requiring pharmacological management for substance misuse may have mental health conditions which also require pharmacological management. The evidence base for treating these two conditions simultaneously has gaps in the adult treatment and is severely underdeveloped in young people (Bukstein and Cornelius, 2006). Consequently professionals are encouraged to work in partnership with professionals competent in young people's mental health issues where young people have both a mental health and substance misuse problem.

An extensive good practice report on undertaking pharmacological interventions with young people will be published shortly by the NTA. It will take into account recent guidelines from the Department of Health (2007b) and NICE (2007a; 2007b; 2007d); extensive evidence from adult populations; good practice and anecdotal evidence from experienced clinicians working with young people; information on gaining consent for treatment; the licensing of medications for substance misuse and use of off-label medication.

Good practice points

- There is solid evidence that pharmacological management of substance misuse is effective among adults, but it must be undertaken with caution with young people
- Pharmacological management can control withdrawal symptoms, provide substitution therapy and reduce cravings
- Young people's response to pharmacological management cannot be totally predicted as there have been no controlled trials. Also, the medication can itself be dangerous if misused
- Gaining informed consent from parents or young people (where they are competent) is a vital task before any treatment starts, but especially for pharmacological management. To give informed consent, a person must understand the possible negative effects of treatment as well as its benefits
- Treating both substance misuse and mental health issues with medication is highly complex. It should only be undertaken by professionals with competence in both areas, or as part of a multi-disciplinary team that holds the necessary competencies.

2. Formal psychosocial interventions

A number of specific psychosocial interventions have been highlighted here as a reflection of the evidence base, however they are not intended to be the only psychosocial interventions that can be used.

The majority of interventions delivered in specialist services to young people in England are psychosocial in nature. The following sections present the evidence for these interventions in relation to young people. There is some over-lap between evidence and good practice points presented here and that published by NICE. There are also differences. The NICE (2007c) public health intervention guidance focuses on community interventions that target young people at risk of substance misuse, while this report focuses on interventions for those with established misuse. The NICE (2007e) guidance on psychosocial interventions, while applicable to those aged 16 and over, primarily focuses on adults and is based on a predominantly adult evidence base. Familiarity with the NICE documents is encouraged.

Cognitive behavioural therapy

The evidence base for the use of CBT for young people's mental health conditions such as conduct disorders, depression and anxiety is well established (Waldron and Kaminer, 2004). NICE (2007e) (psychosocial interventions for substance misuse for those over 16 years) states that CBT for drug misuse should not be offered routinely to people presenting for treatment of cannabis or stimulant misuse or those receiving opioid maintenance treatment. However, as previously stated, this is based predominantly on an adult-orientated evidence base and on drugs rather than substances. NICE (2007c) (public health guidance for community interventions for vulnerable young people) recommends the use of behavioural therapy and Heather, Raistrick and Godfrey (2006) (review of effectiveness of treatment for adult alcohol problems) suggest that CBT approaches to specialist alcohol treatment offer the best chance of success. The situation is therefore confusing in relation to making recommendations for specialist interventions for young people who often have a pattern of alcohol and drug use.

In relation to evidence specifically developed from studying young people with alcohol and drug problems (including those who use a range of substances) there is growing evidence that the use of CBT is effective. Waldron and Kaminer (2004) conducted a systematic review of research exploring CBT used for treating young people's substance misuse. They concluded that out-patient CBT treatment can be effective in reducing substance misuse as well as other related problems. However, they suggest that CBT should be adapted to the different developmental stages of young people from adults. This may include the negotiation of privileges and adding components to develop basic social and coping skills of young people.

Kaminer et al, (2002) found short-term outcomes (three months post-treatment) were better for young people who had received CBT rather than psychoeducational therapy, but only for older youths (16-18 years) and males. This advantage was not found over a longer period of nine months, where psychoeducational therapy performed as well as CBT.

In their systematic review Waldron and Kaminer (2004) found two studies of group CBT which proved as effective as individual CBT. Kaminer and Waldron (2006) suggest that some components of group work may facilitate change. These include realising that others share similar problems, development of social skills, modelling, rehearsal and peer feedback. They suggest that role playing is

particularly suited to a group setting and can mirror daily experiences, allowing the practice of coping with high risk experiences.

Brief interventions and motivational interviewing

In the majority of research reports 'brief interventions' are described as single sessions lasting no more than one hour. Brief interventions are used to encourage self-reflection. They can be used as interventions in their own right among those whose needs are not great, but for other young people engagement with more intense substance misuse treatments can also be a goal. Motivational interviewing techniques are usually used in brief interventions. Motivational interviewing is a client centred counselling style, which aims to encourage reflection on the risks associated with behaviours such as substance misuse in the context of personal values and goals.

Motivational interviewing and brief interventions have been effective in a range of contexts:

- To reduce alcohol use (Gray et al, 2005; Tevyaw and Monti, 2004)
- In accident and emergency departments to reduce substance misuse and increase attendance at specialist substance misuse treatment service (Tait et al, 2004, 2005)
- In custodial settings to increase engagement (Stein et al, 2006)
- In college settings to reduce substance use (McCambridge and Strang, 2004)

Multi-systemic therapy

Multi-systemic interventions focus on the individual, family, peer, school and social networks that are linked with identified problems, using evidence-based, solution focused interventions, such as strategic family therapy and cognitive behavioural therapy. Multi-dimensional family therapy (MDFT) is also based on this theoretical framework. MDFT targets multiple risk and protective factors and multiple domains of adolescent and family functioning.

There has been increasing activity in relation to multi-systemic therapies including MDFT recently. Initial results are promising with substance misuse reducing more quickly than with other interventions in the first three months (Liddle et al, 2001; Waldron et al, 2001). This reduction in substance misuse can last up to 12 months (Liddle et al, 2001) but by this time other interventions are providing comparable results (Liddle et al, 2001; Waldron et al, 2001).

Multi-systemic therapy has been shown to be effective in reducing substance misuse among young people with low levels of substance misuse and short offending histories (Liddle et al, 2004) and among those with established patterns of substance misuse and more established patterns of criminal activity (Henggeler et al, 2006).

Multi-systemic therapy has produced better outcomes in terms of substance misuse and criminal activity than weekly group work (Henggeler et al, 2002; 2006) and these effects may be even higher if combined with contingency management components (Henggeler et al, 2006). Improvements were also shown in relation to completion of the intervention, family cohesion and externalising mental health symptoms (Henggeler et al, 2006).

Good practice points

- Familiarity with NICE (2007c; 2007e) guidance on psychosocial interventions, and the good practice points in this report, can improve professionals' knowledge of evidence-based practice
- CBT has been found to be effective in treating young people's substance misuse
- Providing CBT in a group setting may help young people to role play and practice coping with high-risk experiences. The group setting allows young people to share similar problems, develop social skills, model, rehearse and gain peer feedback
- Brief interventions using motivational interview techniques can be used as one-off sessions, or to facilitate engagement with more structured specialist treatment
- Multi-systemic therapies have been found to be effective in helping young people who have short and long histories of substance misuse. Improvements have been found in misuse levels, criminal activity, family cohesion and some mental health problems
- Combining multi-systemic therapy with a contingency management reward system may increase the intervention's effectiveness.

3. Family

The need to involve family members, particularly parents has been stressed in policy recommendations for some time (SCODA/CLC, 1999) and recently emphasised in *Every Parent Matters* (DfES, 2007) and in *Supporting and Involving Carers* (NTA, 2008b). This is to gain any necessary consent to treatment that may be required and to engender the support of the family in helping the young person achieve their treatment goals.

Some parents may well lack effective coping skills and find it difficult to engage with their child's substance misuse treatment due to their own distress. Coping skills of parents can be improved in treatment programmes. There is evidence to suggest that when training courses are developed for parents their substance misuse and psychological coping improves, and the cannabis use of their children reduces (McGillicuddy et al, 2001).

A study in Scotland found that involving parents and carers improved the effectiveness of specialist substance misuse treatment for young people (McIntosh et al, 2006). This worked in two main ways. Firstly greater information about the young person was gained, which improved the identification and meeting of the young person's needs and which services were already involved in the young person's care. Secondly, it provided opportunities to mobilise the parents' support, to provide advice and information about substance misuse and to discuss parents' behaviour which may be contributing to their child's difficulties.

Parental participation in interventions may improve the outcomes for children. Clark et al (2005) found that young people in alcohol treatment were more likely to do well if their parents provided supervision than those with low parental supervision.

The level of engagement the young person has with an intervention appears to be affected by parental involvement and family relations (Dakof et al, 2001). Young people whose parents appreciated that their child had a problem with substance misuse, but who also demanded an end to this behaviour and encouraged academic achievement engaged better with interventions. This applied even where it seemed unlikely that the young person would actually do well at school. It is also important to make sure that the young person appreciates they have a problem to encourage engagement; discussing the family conflict it causes is one way of doing this (Dakof et al, 2001).

Good practice points

- Involving a young person's family in his or her treatment is beneficial in providing support to the young person, and has been shown to improve the effectiveness of treatment
- Providing support comprising information on substances and parenting skills can improve parents' ability to cope with their child's problems and reduce substance misuse among parents and their children
- Involving family members allows professionals greater access to the needs of young people and facilitates a better understanding of the context of the development of the misuse problem
- Practitioners should be aware of the different risks posed when parents are also using substances
- Young people's greater appreciation of the family conflict substance misuse causes, combined with active encouragement to attend treatment from parents, can aid engagement with specialist treatment.

4. Specialist harm reduction

This section relates to interventions that the NTA expects local areas to provide within specialist substance misuse treatment. It relates to three specific areas of evidence: needle exchange for injecting drug users, immediate drug-related deaths, and physical injuries sustained associated with misuse. Other aspects of harm reduction, such as advice on safer drinking, avoiding blood-borne viruses and reducing sexually transmitted infections, should be provided at universal and targeted levels of support (as well as in specialist services) so are not covered here. However, the aspects outlined below should only be provided at a specialist level, hence the term 'specialist harm reduction'.

Needle exchange

Needle exchange provision has been the back bone of UK harm reduction initiatives since the advent of HIV and AIDS (ACMD, 1988). The implementation of needle exchange and other harm reduction initiatives has limited the spread of HIV infection in the UK (Stimson, 1995). Recent research however, has indicated that rates of blood-borne viruses among injecting drug users is rising (Health Protection Agency, 2006) and there is a renewed

emphasis on the provision of harm reduction initiatives (Department of Health, 2007a).

The provision of needle exchange for young people under the age of 18 has attracted some controversy, both from those opposing its provision and those supporting it. National policy in England has supported the provision of needle exchange to young people (SCODA/CLC, 1999; DrugScope, 2001; NTA, 2005), although this provision is set within a different framework than that for adults. Due to risks inherent in injecting drugs and the duty of care we owe to young people, needle exchange is conceptualised for young people in English drug policy as part of one element of treatment, undertaken only after a risk assessment, full assessment, and as part of a care package, as opposed to the low-threshold, often anonymous provision that represents adult needle exchange. This position is an attempt to balance the need for harm reduction initiatives to reduce risks associated with injecting with ensuring those who access needle exchange get the appropriate support to make changes to their drug taking behaviour.

Few studies have explored the provision of needle exchange on the attitudes and behaviours of young people. Kipke et al (1997) in the USA compared two groups of 'street youth', one that used a needle exchange facility and one that did not. 'Street youth' are described as young people not in education or employment, runaways or homeless and/or involved in gangs, drug-dealing or prostitution. They found that the rate and type of drug use was similar in the two groups but those using the needle exchange practised safer injecting, such as less sharing of syringes and other equipment, than those who did not. The young people in this study were aged 16-18 (23%), 19-21 (42%), and 22-24 (35%). The younger members of the group were more likely to be injected by someone else, and felt they could not access clean sterile equipment as easily as the older youths. This puts them at greater risk of blood-borne viruses. A similar study (Guydish et al, 2000) among young drug injectors with a mean age of 20 suggested most young injectors do not believe that needle exchange either increases drug use, or decreases treatment readiness, and that it may decrease some HIV risk behaviour, such as access to clean needles and reduced reuse of syringes.

Providing needle exchange to young people appears to be necessary to reduce the risk of blood-borne virus transmission. Among young people (aged 15-19) attending services in Ireland it was found that after the first year of injecting, risk-taking behaviour increased (Mullen and Barry, 2001). Thus providing interventions early is likely to promote blood-borne risk-reduction measures including injecting sharing practices and sexual practices, which may be particularly pertinent for young women (Mullen and Barry, 2001). Providing services to young people within a harm-reduction model has been shown to be valuable among young people accessing needle exchange facilities (Weiker et al, 1999). After initial engagement to access clean needles, the young people spent more time at the facility and could be introduced to broader aspects of harm reduction. The young people emphasised that not being judged about their drug use increased their self-esteem and feelings of self-worth.

Not only can needle exchange promote a reduction in blood-borne virus risk behaviour, but a USA study among school pupils found that seeing drug users attending needle exchange could also be a deterrent to drug use (Marx et al, 2001) and had at least a neutral effect on youths who lived in the vicinity of a needle exchange, rather than a detrimental one.

Drug-related deaths

The Office for National Statistics (ONS) reports on drug-related deaths in England and Wales. In a recent bulletin (ONS, 2007a) it stated that while there had been a general downturn (9%) in the number of drug-related deaths since 2000, it was not enough to meet the government target of 20%. The NTA (2007b) has published an action plan to increase the rate of reduction in drug-related deaths.

The ONS collates the number of deaths due to 'drug-poisoning' which includes deaths where the underlying cause is recorded as due to poisoning, drug abuse and drug dependence, and includes only those drugs controlled by the Misuse of Drugs Act 1971. In 2007 these deaths (which include all age groups, including young people and adults) could be broken down as resulting from a number of factors:

- 33% accidental overdose
- 45% drug dependence
- 11% self-poisoning
- 11% undetermined intent
- Less than 1% homicide.

In 2004 (ONS, 2007a) drug misuse was the third most common cause of death among young adults aged 15-35 years old, after traffic accidents and suicide. However, deaths due to drug misuse among those aged under 20 remain low compared to

deaths in other age groups (ONS, 2007b). In 2006 there were 1,753 deaths due to drug use, of which 50 (3.2%) were aged 15-19. The number greatly increases to 408 (26%) in the next age bracket, 20-29. This suggests that increasing the preventative messages to young people already using substances before the age of 20 will not only avoid drug-related deaths among young people but may also help avoid later deaths from 'drug poisoning'.

In relation to volatile substance misuse (not covered in the drug-related deaths statistics above) there has been a general decline in deaths since 1992. Among those under 18, there has been a fall from 13 in 2004 to six in 2006 despite the use of volatile substances among school children remaining stable at 5% for boys and 6% for girls (Field-Smith et al, 2008). Three of these deaths were associated with aerosol misuse, two with butane cigarette lighter refills (despite the sale of these being prohibited to under 18s), and one with nitrous oxide which had been obtained for non-medical use. In 2006 the youngest person to die was 15. Field-Smith et al (2008) suggest that Department of Health advertising campaigns in conjunction with school-based education programmes may have contributed to the decline in deaths among young people.

The NTA (2007b) Action Plan on Reducing Drug Related Harm stresses the importance of reducing deaths due to blood-borne viruses as well as from drug poisoning. The Action Plan includes improving access to hepatitis B vaccination, testing and treatment for hepatitis B, C and HIV, and prevention of drug-related deaths due to overdose and misuse.

Accidental injury

The National Information Centre (2007) of the NHS has reported on alcohol statistics in England. During 2005/06 there were 4,060 admissions to A&E departments of young people under 16 where the primary diagnosis was specifically related to alcohol consumption. This represents a 29% increase in ten years. When secondary diagnosis related to alcohol consumption is included this rises to 5,280, an increase of 37% since 1995/96. Over half (59%) of those under 16 were girls. The majority of primary diagnosis related to alcohol consumption were mental and behavioural disorders associated with alcohol, most of the other admissions were due to the toxic effect of alcohol consumption.

Hansard (2008) reported that in 2006/07 there were 13,976 hospital admissions in England of young people under 15 where the primary or secondary diagnosis was related to drugs. This represents a slight decrease from the previous four years when figures varied from 14,134 to 14,612. The term 'drug' in this context refers to a range of substances, including volatile substances, but not alcohol.

This data shows that young people's admissions to hospital as a result of drug or alcohol consumption is an issue of concern. Many admissions may not relate directly to overdose of alcohol or drugs but nevertheless may warrant intervention to prevent further physical or social harm. Information from the USA illuminates how drinking can be linked to wider social problems, and that admissions to hospital may provide an opportunity to intervene.

Young people admitted to Emergency Departments in America with physical injuries are frequently identified as having been drinking; in addition other young people attend Emergency Departments as a result of intoxication from alcohol (Kelly et al, 2004). Young people are more likely to be involved in physical fights if they drink or take drugs, this in turn is associated with peers' use of substances and criminal activity such as selling drugs or gang fighting (Kodjo et al, 2004). Problem drinking and drinking with peers may be more closely associated with physical fighting than frequent drinking and binge drinking (Swahn et al, 2004).

A study in North America found that young people were not routinely referred to drug and alcohol services following admission to Emergency Departments, even where their blood alcohol level was positive and they had sustained an alcohol-related injury (Mader et al, 2001). Several studies have found that the screening instrument Alcohol Use Disorders Identification Test (AUDIT) is useful for assessing problematic drinking among young people treated in Emergency Departments (Chung et al, 2000; Kelly et al, 2002 and Kelly et al, 2004).

Kelly et al (2004) found that young people (16-20 years) treated in emergency departments for physical assaults or alcohol intoxication were more likely to be problematic alcohol drinkers (as defined by AUDIT) than those admitted for illness, self-inflicted or accidental injuries, even when they had also been drinking. Those treated for physical assaults or intoxication, who had drunk to the point of intoxication once a month or more, were 15 times more likely to be classified as problem drinkers. This suggests that young people who present at emergency departments with a physical assault injury or alcohol intoxication and who also drink to intoxication at least once a month should be considered for referral to a misuse treatment service (Kelly et al, 2004). AUDIT is being piloted in some UK hospital settings with young people.

Good practice points

- Specialist harm reduction consists of interventions to manage injecting behaviour, overdose and accidental injury
- Needle exchange has been a core part of drug treatment in the UK since the 1980s. Needle exchange for young people should take place only after a risk assessment, full assessment, and as one element of a full care-planned treatment package
- Studies in the USA suggest that socially excluded young people involved in drug misuse understand the benefits of needle exchange and do not consider it a barrier to access other treatments. Young people who have used needle exchange facilities are more likely to have been injected by someone else, found it hard to access needle exchange but when they have accessed it are less likely to share injecting equipment
- Providing needle exchange to young people may reduce risk-taking behaviour and has been shown to improve access to other aspects of drug treatment
- The NTA (2007b) *Action Plan on Reducing Drug Related Harm* stresses the importance of reducing deaths due to blood-borne viruses (hepatitis B, C and HIV) as well as from drug poisoning
- Providing information and advice on how to avoid drug-related deaths, including deaths by solvent misuse, should be given to all young people who use substances. It may prevent risk taking and reduce the numbers of drug-related deaths
- Drinking and drug taking behaviour among young people is associated with admissions to A&E departments. Alcohol-related admissions among young people are growing in England, while admissions related to drug use remain high
- Screening and risk assessment tools such as AUDIT can identify young people with drug and alcohol problems in A&E who need referring to misuse services. The prompt for screening is admission due to substance-related intoxication or injury, including those that are self-inflicted and caused by conflict.

Residential treatment for substance misuse

Young people's residential interventions have been found to be as effective as community-based ones (Spooner et al, 2001; Dennis et al, 2004; Morral et al, 2006). However, Jainchill et al (2005) warn that residential services run as 'therapeutic communities' may not produce reductions in misuse one year after starting the programme. Young people who have participated in such communities do not rate them well and have described them as demeaning and alienating (Currie, 2003). Therapeutic communities use positive peer role models and the peer community to facilitate social and psychological change; they often contain confrontational elements to reduce aspects of a young person's behaviour that does not meet the programme's strict boundaries.

Similar studies have not been conducted in the UK so we cannot assume to draw similar conclusions when comparing services in England. With regard to 'therapeutic communities' the study refers to a specific type of service that engenders a hierarchical regime where professionals and peers expect strict adherence, leading to punitive action for small infringements, such as being late. It is unlikely such regimes exist in England; nevertheless it shows the importance of understanding the regime and not viewing all residential facilities as the same.

Excluding young women with depression, who appear to respond well to community services, Godley et al (2004) suggest that young people with a dual diagnosis of substance misuse and mental health and/or those who regularly use heroin, cocaine or alcohol may achieve better outcomes in residential settings. However, other studies have found similar outcomes in both community and residential facilities (e.g. Morral et al, 2006).

Good practice points

- In the USA, residential treatment services have been shown to be as effective as other community-based services
- There have been negative appraisals of 'therapeutic community' services where participants are punished for breaking rules in a hierarchical system of peers and staff. This type of regime should be avoided
- Intense residential services may help meet the needs of young people with mental health issues as well as substance misuse problems, and of those with severe misuse problems.

Engaging and retaining young people

One of the greatest challenges in working with young people to address their substance misuse is encouraging them to engage with it at all, and then working to maintain their attendance at treatment services until they have achieved their goals or moved on to other support networks.

Understanding young people's perspectives of substance misuse treatment may help to break down barriers to them accessing services. Some young people may not feel that they have a problem or need any help (Friedman et al, 2003), while others have little or no concept of what substance misuse treatment might be like (White et al, 2004). Young people can have negative ideas about substance misuse treatment, at best thinking it will be boring, and at worst strictly run and even prison-like (White et al, 2004). It is important to ensure that these opinions are changed by winning the young person's confidence that the service offered will be interesting and responsive to their needs, developed in an arena of respect, trust and warmth.

Good practice points

- Treatment providers should aim to make their services interesting and responsive to young people's needs; gaining the confidence of the young person by being respectful, trustworthy and emotionally warm. Staff should show that they care about young people, are committed to helping them, and flexible in helping to meet each young person's needs.

Setting goals

Following a full assessment of need, goals are set as part of the care planning process. These goals should be negotiated between the young person, their parent and the practitioner. Some studies have looked at expectations of substance misuse treatment and can give us an insight into what is important for young people, including some things that are not always articulated at the initial stages.

One of the most important things to young people when accessing substance misuse treatment is that staff are caring and committed, and able to be flexible to their needs (Duroy et al, 2003). This staff support appears to be more important than the type of intervention given, as young people with experience of different types of intervention could come to no overall consensus on which type of intervention they liked best or thought was most helpful (Currie, 2003 and White et al, 2004).

Setting treatment goals in a way that fully includes the young person offers an opportunity to demonstrate flexibility and your commitment to caring for the young person. One study found that young people mostly want to lower their levels of substance consumption, but feel that their parents would not accept this as they wanted abstinence or a change in the young person's attitude (White et al, 2004). This is likely to be an issue to debate with the family so that realistic achievable goals can be set that everyone understands the value of.

Practitioners should not be put off if a young person seems to have little motivation to change or does not believe he or she has the skills to change; as neither motivation (Friedman et al, 2003) nor self-efficacy (Burleson and Kaminer, 2005) have been shown to be good predictors of treatment outcome in young people. Specialist substance misuse treatment itself should boost confidence levels and develop the young person's ability to see that they can make changes to their lives.

Good practice points

- Young people may show little motivation to change, or feel that change is not possible. Professionals need to support young people to understand why change is desirable and to develop confidence in their ability to change
- Treatment goals should be negotiated between the young person, their parents, and the practitioner. Initially, different people may have different goals. It is important, therefore, to discuss the goals in terms of achievability and value to arrive at a suitable compromise where required.

Therapeutic alliance

The development of therapeutic alliance appears to play an important factor in successful treatment outcomes. It is defined as the collaborative and effective bond between the therapist and patient. A range of young people's specialist substance misuse treatment interventions have been shown to be affected by therapeutic alliance (Shelef et al, 2005; Tetzlaff et al, 2005; Hogue et al, 2006; Matrix and the Institute for Criminal Policy Research, 2007). Where the therapeutic alliance between the therapist, the young people and their parents is poor, young people in MDFT tend to drop out of treatment rapidly (Robbins et al, 2006).

The importance of therapeutic alliance is described by practitioners working in England piloting arrest-referral schemes with young people (Matrix and the Institute for Criminal Policy Research, 2007). Key features of success were:

- Allowing the young people to visit services before they had committed to treatment
- Ensuring that the young people understood that referrals to treatment were not compulsory
- Developing positive relationships with young people
- Taking them to treatment services
- Not overwhelming the young people with long-term plans.

In family-based treatment there is some debate about whether therapeutic alliance is more effective when developed more strongly with the parent or the young person. As stated previously, establishing an alliance between the therapist and the young person is important. This can be achieved by addressing the anxieties of the young person and ensuring that their wishes are taken into account (Shelef et al, 2005).

However, Shelef et al (2005) also stress that the alliance between therapist and parent is also crucial as not only does the parent usually bring their child to sessions, he or she also has a strong desire for change and can play an important part in bring about change in the child. Where the therapist and parent can agree on the treatment intervention, its goals and tasks, the parent is more likely to engage with the child emotionally and in daily interactions. The young person may see this change in the parents' behaviour as being due to the involvement of the therapist and consequentially feel a greater affinity to the therapist, thus improving the alliance between the therapist and the young person (Shelef et al, 2005). This demonstrates the importance of bringing the parents on board when undertaking substance misuse treatment, in terms of reinforcing the intervention in the home and in bringing about more rapid changes in the family home than may be achieved by working with the young person in isolation.

Shelef et al (2005) conclude that the parent-therapist alliance has the greatest impact on engaging the young person into treatment. Thereafter the quality of the alliance between the young person and therapist has the greatest impact on the effectiveness of the treatment in terms of substance misuse and other psychological improvements. Hogue et al (2006) concur that the therapeutic alliance with parents should initially be emphasised, but then over time the alliance with the young person should be emphasised. A strong alliance between the therapist and the parent initially produces the greatest reduction in substance misuse and externalising mental health symptoms. Improvements in externalising mental health symptoms also occurred when the alliance between the therapist and the young person developed as treatment progressed. It appears that practitioners delivering family-based interventions will have to balance their development of therapeutic alliance carefully to have the greatest effect.

Good practice points

- The development of a therapeutic alliance between the professional and the young person improves the effectiveness of treatment outcomes. A therapeutic alliance can be developed by addressing the anxieties of the young person and ensuring that his or her wishes are taken into account
- When working with families, establishing a therapeutic alliance between the professional and the parents, as well as between the professional and the young person, is important. This can be approached in a sequential way, first working on developing an alliance between the professional and the parent if this is considered to be important in engaging the young person in treatment.

Practical support and semi-formal contact

Establishing regular contact with a young person and offering practical support to overcome barriers to treatment engagement has been shown to be effective in improving treatment interventions. However, activity of this type it is not classed as a therapeutic intervention in itself and should be provided as an engagement aid alongside therapeutic interventions. In North American literature this activity is described as 'case management' but this could be confused with 'care management' or 'care planning' in England, which are specific interventions with their own definitions. The term 'practical support and semi-formal contact' will be used here. The practical support described below should be seen as one element of 'key-working' as understood in England.

Practical support and semi-formal contact sessions have been shown to increase engagement and retention in substance misuse treatment (Noel, 2006). In Noel's study, weekly sessions were arranged, in addition to any other therapeutic interventions, purely to concentrate on eliminating any issues that may be a barrier to effective treatment engagement. The sessions were held in places that the young person had no difficulty attending, such as their own home or local community resources. Issues tackled in these sessions included but were not limited to:

- Planning and co-ordinating other interventions
- Ensuring young people attended their interventions and had no difficulties with them
- Acting as an advocate for the young person
- Transportation to treatment interventions
- Helping with housing or other social factors.

In some cases the person providing this service was also providing therapeutic interventions, but these were conducted separately so these sessions could be more informal and relaxed. It is interesting to note that in another study young people said they valued the opportunity to have informal contact with practitioners so that they could see that they were 'real people' (Duroy et al, 2003).

Noel (2006) suggests that this type of support may be particularly beneficial to groups generally difficult to engage such as young women, young people from black and minority ethnic (BME) communities and those with mental health problems.

Good practice points

- Providing practical support and semi-formal contact to young people can help them access the more formal aspects of treatment
- Examples of practical support and semi-formal contact are: planning other interventions; helping young people attend treatment; checking treatment progress; advocacy; helping access to social support
- Practical support and informal contact may be useful in helping young people who are hard to engage in treatment.

Group work

The use of therapeutic group work with young people is not widely implemented in England, though it is regularly used in the USA. Concerns about confidentiality between group members and information being used to manipulate others may have influenced decisions about the appropriateness of group work. These fears are echoed by young offenders in custodial settings in the USA (Stathis et al, 2006), but an evaluation of community-based services for young offenders in England and Wales recognised the value of group work (Hammersley et al, 2004). However, some of these groups proved difficult to run due to narrow inclusion criteria, which kept the attendance too low. Hammersley et al (2004) suggest that incorporating substance misuse into generic group work on health or offending may mitigate these effects.

Evaluations of therapeutic group work in North America found it to be as effective as individual therapy and did not note any negative effects (Dennis et al, 2004), even when including young people with conduct disorder (Kaminer et al, 2002).

Good practice points

- Concerns about the negative consequences of therapeutic group work with young misusers may have been exaggerated
- Therapeutic group work can be effective, provided sufficient numbers attend
- Therapeutic group work on substance misuse could be incorporated into groups addressing wider health or social issues.

Aftercare

Aftercare describes what happens after young people are released from custodial sentences, complete community sentences and/or leave treatment. Specialist treatment is one of many services that are required to support the changes made in relation to substance misuse.

The effectiveness of specialist substance misuse treatment interventions in reducing substance misuse appears to change over time from the start of treatment, which has important implications for aftercare interventions. The periods discussed in this section describe the time lapse since the commencement of treatment, not treatment length. The length of treatment varied between interventions in each study, but differences in treatment effectiveness were not found between interventions.

Substance misuse reduces most quickly in the first three months following the initiation of treatment (Dasinger et al, 2004 and Dennis et al, 2004). Over the following nine months (i.e. after a year from commencement) there is a gradual return to substance misuse but it remains at levels lower than were originally the case. This suggests that while substance misuse treatment is effective, the effects diminish over time and cannot prevent all substance misuse or problems for young people (Dennis et al, 2004). Brown (2004) found that despite the shorter history of substance misuse problems that young people present compared to adults, they have similar levels of relapse in the first year following treatment.

Farabee et al (2001) compared young people receiving substance misuse treatment who were being monitored by the criminal justice system with young people receiving treatment not being monitored by the criminal justice system. They found that while alcohol and cannabis use had reduced after a year for both groups, those not being monitored by the criminal justice system had increased their heroin and cocaine use. This increase in substance use was small, but statistically significant.

While Rowe et al (2004) found that there may even be increases in substance misuse during treatment, by six months the misuse had reduced to levels lower than at the start of treatment.

The current evidence base is not able to account for these fluctuations in patterns of use over the one year period. Measham et al (1998) may offer some clues: they looked at young people not in treatment in England and found that there were fluctuations in use over time. Brown (2004) suggests that the relapses may be due to a range of factors such as changes in the young person's environment, fluctuating motivation, or skills deficits. Further research is clearly needed in this area.

Whatever the reasons for relapse or increases in substance misuse, what is clear is that follow-up support and aftercare interventions could offer opportunities to bolster and reinforce the messages from treatment interventions. This could in turn reduce the number, length and severity of relapses and increases in substance misuse. Godley et al (2004) suggests that those over 15 years old and young people with conduct disorder are more likely to require aftercare support to maintain treatment benefits.

Good practice points

- Substance misuse treatment is effective, but the effects diminish over time and cannot prevent all substance misuse or problems for young people
- As with adults, young people are likely to relapse, which can occur during treatment or following it. However, rates of substance misuse are still likely to be lower than before treatment
- Regular contact and monitoring of young people has been shown to reduce the return to substance misuse. Aftercare interventions offer opportunities to bolster and reinforce the messages from treatment interventions.

Transitions

A transition is the process of moving from one service to another. This can be from young people's services to adult services, residential services to community services, or specialist services to universal services. The evidence in relation to transitions is all from North America and concerns the transition from residential to community services, and the transition between high and low-intensity community services. It is difficult to widely apply the findings of these studies to an English setting where there is little residential or daily high-intensity specialist substance misuse treatment. However, those young people leaving residential services, including custodial establishments where they have received substance misuse treatment, may benefit from the lessons of these studies, as might those exiting community-based services. Continuity of

substance misuse services has been shown to be poor for young people leaving custodial establishments in England and Wales (Pitcher et al, 2004).

Wood et al (2002) explored the experiences of staff working in residential services. The staff felt planning to prepare young people for the transition to community living needed to be done well in advance of the actual departure. The planning process should include the young person, their family, health and education services to identify needs and plan services to meet them.

Duroy et al (2003) interviewed young people involved with a long-term (three years) stepped-care substance misuse treatment model. The model consisted of a residential phase, an intensive daily community phase, and a lower intensity community intervention (at least two groups per week). They found that young people with severe substance misuse problems such as a history of previous treatment, or a history of heroin, cocaine or regular alcohol use, found the transition to a less intense form of substance misuse treatment or ending treatment very stressful. Factors precipitating the stress were different when leaving residential service compared to when reducing the intensity of community treatment, but stress was evident at both stages.

Returning to the community, young people were concerned with:

- Returning to difficult family situations
- Loosing the support of the residential service
- Meeting peers who were still using substances.

Adjustment was difficult for some as their families had not always changed, or not to the same extent as the young person, and family members found it difficult to recognise the changes in the young person (Duroy et al, 2003).

Young people were able to identify factors that eased the stress of changing to a lower intensity community substance misuse treatment service. Particularly important was being in training or employment, which increased their feeling of self-reliance and developing independence (Duroy et al, 2003).

Godley et al (2002, 2007) found that providing practical and informal support helped ease the transition from residential to community programmes, improving retention in services and reducing the return to substance misuse. Increasing communication skills, problem solving and encouraging pro-social activities all support the transition period (Godley et al, 2002). However, these interventions may have to be continued for longer than three months (Godley et al, 2007).

Good practice points

- Transition between services and discharge planning should be started well in advance of the transition/discharge date, particularly when leaving residential services, reducing the intensity of services, or being discharged from treatment completely
- Young people find transition to new services stressful. Leaving residential services raises issues about stresses and triggers in the community, such as family circumstances and mixing with substance misusing peers again
- Engaging family members in preparing to have the young person at home again may relieve some of the stress, as will finding positive activities for young people to engage with, including education, training and employment
- Providing practical support and informal contact over an extended period of time may be required to support the transition.

Developments for special groups

This section describes substance treatment related research on specific groups of young people, demonstrating additional vulnerabilities to that of substance misuse and effective treatment interventions. There are a number of groups of young people who are considered vulnerable to developing substance misuse problems (NICE, 2007c). Not all of those groups are reflected here, as the determining factor was young people participating in substance misuse treatment intervention research for special populations rather than vulnerability to substance misuse. Similarly young women who are pregnant present a service with additional complications, but there is no specific research on this group and practitioners have only adult treatment recommendations (e.g. Department of Health, 2007b) to refer to at present.

Young women

A number of studies have shown that young women who come into contact with specialist substance misuse treatment services and the criminal justice system may have more severe substance misuse and mental health problems than young men.

In England and Wales, studies have been conducted in relation to criminal justice settings, on arrest or in custody. Douglas and Plugge (2006) found that over a third of young women in custody had recently self-harmed and that many are vulnerable to sexual exploitation. Other studies suggest that young women are more likely than young men to:

- Test positive for Class A drugs on arrest (Matrix and The Institute for Criminal Policy Research, 2007)
- Have self-harmed both before and while in custody (Galahad SMS Ltd., 2004)
- Be vulnerable to health problems, more likely have mental health and/or substance misuse problems, more likely to use heroin, crack or be poly-substance misusers while in custody (Douglas and Plugge, 2006).

Similar patterns of mental health problems and severe substance misuse have been found in specialist substance misuse treatment settings in the USA. Young women in comparison to young men have been found to have:

- More severe substance misuse problems (Ruiz et al, 2005)
- Needs in addition to substance misuse, such as mental health problems and family dysfunction (Rowe et al, 2004)
- More severe mental health problems (Ruiz et al, 2005).

These studies represent levels of need among young women who come into contact with services. However, there is little known about how treatment could be tailored differently to be more effective for young women. Two studies give some indications.

Noel (2006) found that young women may respond well to "practical support and semi-formal contact", (termed 'case management' in the USA). This strategic approach, which ensures that barriers to treatment are overcome and provides assistance to access treatment, helped young women with multiple problems engage with, and stay in, treatment.

Reihman et al (2003) interviewed young women in specialist treatment in the USA about their social relationships and their ability to gain support from social networks. Despite the interview not specifically asking anything about sexuality, they found that where young women had social relationships with men they operated on a highly sexual basis and offered little in the way of support. These same young women also gained little support from their same-sex friendships within the residential programme as there were concerns about gossiping and conflicts in sexual relationships that may develop with the young men on the programme. Overall, Riehman et al (2003) found that young men were more likely to gain social support from both same and opposite-sex relationships than young women in residential treatment settings. They therefore suggest that young women may be more likely to respond better in one-to-one sessions rather than group work and that they may need support in building their friendship skills.

Good practice points

- Young women who come into contact with specialist substance misuse treatment or criminal justice services may have more severe substance misuse problems than young men in similar circumstances. They are also more likely to have mental health problems and be vulnerable in other ways, such as exposure to sexual exploitation. Care should be used to ensure that assessments are sensitive, yet thorough, in helping to identify needs in young women
- Young women may need extra support to access services that meet their needs, and help to establish supportive relationships from peers

.

- Young women with multiple problems may benefit more from one-to-one services than from group work.

Mental health

When people have a substance misuse problem and a mental health problem it is often referred to as a dual diagnosis or co-morbidity. Studies in the UK are restricted to custodial settings where high levels of dual diagnosis have been found (Galahad SMS Ltd., 2004). Young women seem to be particularly vulnerable to this, engaging in higher levels of self-harm than young men (Galahad SMS Ltd., 2004; Douglas and Plugge, 2006). The vulnerability to dual diagnosis among young women is seen in the increased incidence of post-traumatic stress disorder (PTSD), depression and suicide (Douglas and Plugge, 2006). These studies are supported by findings in the USA, where Abrantes et al (2005) found high levels of dual diagnosis in custodial settings and increased severity of both substance misuse and mental health problems among young women.

Studies from other countries show that dual diagnosis among young people is associated with:

- Earlier onset of misuse (Rowe et al, 2004)
- A poor ability to cope with misuse, even though levels of use may be lower than peers without mental health problems (Tomlinson et al, 2004)
- Family dysfunction and parents with drug or alcohol problems (Grella et al, 2001, and Rowe et al, 2004).

Mental health symptoms may appear to increase among those with pre-existing mental health problems who also use substances, requiring greater resources from treatment settings (Stathis et al, 2006). Early identification and treatment of dual diagnosis is required to produce better treatment outcomes for this group, who tend to have more severe substance misuse problems and multiple treatment episodes (Grella et al, 2001).

Young people with dual diagnosis may be less likely to do well in substance misuse treatment than those without mental health problems (Grella et al, 2001; Rowe et al, 2004, and Tomlinson et al, 2004). This may be because they are more likely to relapse (Rowe et al, 2004, and Tomlinson et al, 2004) or because depressive symptoms are quite resilient to change (Grella et al, 2001).

However, other studies have found that young people with dual diagnosis can be engaged in treatment (Noel, 2006), and that this treatment can be effective at reducing substance misuse and mental health symptoms (Kaminer and Burleson, 2004).

There are particular difficulties regarding the use of pharmacological treatments with young people who have a dual diagnosis.

Good practice points

- Dual diagnosis, or co-morbidity, of substance misuse and mental health problems is high among young people who have substance misuse problems
- Having a dual diagnosis is associated with additional risk factors, such as early onset of substance misuse, less ability to cope with using substances and family difficulties
- Early identification of mental health problems is encouraged to help improve the possibility of effective substance misuse treatment. Establishing access to treatment services may be difficult and may require providing practical support and informal contact
- Working with young people with a dual diagnosis requires expertise from substance misuse and mental health professionals; collaborative working between services and/or professionals is required.

Young offenders

Studies in the UK reliably show that substance misuse is more common among young people involved in the criminal justice system than those who are not involved in offending behaviour. While the general pattern of substance misuse remains similar, in that the most common substances used are cannabis and alcohol, the levels of young people involved in such activities and in taking Class A drugs are much higher than in general youth comparison groups (Hammersley et al. 2003; Galahad SMS Ltd, 2004; Matrix and The Institute for Criminal Policy Research, 2007).

In criminal justice policy the links between substance misuse and crime are largely accepted, however this does not make it a simple causal relationship (Seddon, 2006). Studies of young people's substance misuse treatment often take place in the context of criminal justice interventions and attempt to establish a link between substance misuse treatment and reduction in criminal behaviour. A number of studies have demonstrated that involvement in substance misuse treatment can lead to a drop in criminal activity (Jainchill et al, 2005; Henggeler et al, 2002; Farabee et al, 2001); however, this is based on self-report criminal activity.

Despite the potential problems with using self-report data the studies had some interesting findings. Farabee et al (2001) found that being supervised by a criminal justice agency was associated with a reduction in drug-related crime compared to those who also underwent substance misuse treatment but were not supervised in this way. This was despite the fact that the young people who were supervised by the criminal justice agency were more likely to have committed more crimes before the intervention, have criminally active families and peers, and meet the diagnosis for conduct disorder. However, Henggeler et al (2002) found that Multi-systemic therapy for substance misuse produced reports of a drop in violent crime but not property crime.

There is no irrefutable evidence that substance misuse treatment produces a reduction in criminal convictions in young people. However, these promising findings about self-reported drops in criminal activity, along with the link between substance misuse and crime, should encourage professionals to consider that substance misuse treatment is a valid intervention for those who have identified needs.

Good practice points

- There is an established but complex link between substance misuse and criminal activity
- Young people who offend are more likely to use substances than young people who do not offend.

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Appendix: Methodology

The aim of this document was to produce a synthesis of the evidence on effective substance misuse treatment for young people. A systematic approach was used to gather source materials for the review. Among the criteria for sourcing and including literature were:

- Searching for peer review journal research data and grey literature published since 2001
- Invitations to key informants and other professionals working in appropriate research, policy and practice fields to contribute studies including in-house evaluations
- Selecting studies that were appropriate to substance misuse treatment interventions in England, treatment as defined by the NTA
- Reviewing and appraising studies based on established grading systems
- Including systematic reviews to support topics where evidence was low or absent since 2001, so that studies published prior to 2001 could be included where they were required.

Search strategy

A literature review is most effective when a clear search strategy has been developed. A systematic approach to searching and grading the evidence was adopted for the development of this report. The search strategy involved identifying a list of databases that had abstracts, references or full details of research articles in the social sciences, medicine and criminal justice arenas. Key terms were used in the search, developed to be in-keeping with the elements of substance misuse interventions considered to fall under the remit of 'treatment' and those proposed at a national consultation event held by the NTA. Key terms included 'young people', 'adolescents' and 'adolescence' as the review was only to include those studies based on data from a population of people under 18 years old or where a large proportion of the sample were under 18.

The database search was supplemented by other tactics. Reference lists of journal articles were searched, and in-journal searches were undertaken. In addition numerous websites were searched for non-peer review but published work as well as grey literature searches undertaken in specialist libraries.

Validation

Initial searches identified many sources but it became clear that many were descriptive of prevalence, risk factors, and trends in substance misuse as opposed to focusing on impact, effectiveness and intervention approaches. These studies were therefore excluded.

Initial assessment of the abstracts led to the identification of nearly 600 studies to include in the full rating process. The rating process used explicit methods to appraise and analyse the identified studies. Full text copies of the materials were gathered for appraisal and analysis, all literature was graded independently by two researchers. Any disputes regarding grading were discussed in detail before final agreement was reached.

Grading for the quantitative studies was based on an adapted version of the Scientific Maryland Scale (SMS) to include comparison as well as control groups, as control groups were generally not evident in the studies. Table 1 demonstrates the grading table, with studies being rated as 5 being the most robust and those graded 1 the least.

Standard	Description
Level 5	Randomised control trial i.e. pre and post intervention measures in treatment and control/ comparison group, with participants randomised to treatment and control/ comparison groups.
Level 4	Pre and post intervention measures in treatment and control/comparison group, and analysis also controls for other factors that influence outcome.
Level 3	Pre and post intervention measures in treatment and control/comparison group.
Level 2	Includes pre and post intervention measures but with no control/comparison group.
Level 1	Includes studies reporting an outcome measure with an intervention group assessed at one point in time only.

Table 1: Scientific Maryland Scale (adapted)

Grading from the qualitative studies was conducted using the Global Assessment of Evaluation Quality (GAEQ) scale. To derive a score, each study was assessed on the dimensions listed in Table 2. The presence of each dimension scored a point on the scale. A score of zero on an item implies low or poor rating, higher scores imply greater methodological robustness. Possible scores were 0-5.

Dimension	Description
Measures/ data collection tools	Specified and standardised data collection tools (e.g. written topic guides, aide memoirs, etc.)
Sample representat-iveness	Adequate representativeness of sample relative to analytic dimensions (in sense of cross-section, not statistical representativeness) e.g. not all 'volunteers', not all one type of person when an intervention is delivered to a range of people
Sample size	Adequate sample size in relation to conclusions draw (especially regarding sub-groups i.e. not less than n=5)
Analytic methods	Proper data capture methods (tapes, notes) and appropriate and specified methods of analysis (e.g. grounded theory, content analysis, framework analysis, thematic, etc.)
Programme integrity	External or independent evaluation

Table 2: GAEQ scale

Inclusion in the report

All studies identified were graded. This included peer reviewed articles and grey literature. Following grading against the SMS or the GAEQ, studies that scored less than three were excluded. In addition the evidence was supplemented where there were gaps in research by reviews of the evidence base where these were justified in terms of their systematic nature and scoring criteria. Often these provided evidence from an earlier time than 2001 so expanded the timeframe for publication.

Research was assimilated into the report according to the NTA's definition of interventions that include treatment (Chapter 2). Other studies were included that focused on the quality of developing relationships with young people with substance misuse problems (Chapter 3).

Acknowledgement

It is noted that a systematic literature review commissioned by the Youth Justice Board of England and Wales (YJB) in 2006 on substance misuse effective treatment interventions (not specifically related to criminal justice settings or outcomes) made a large contribution to this document.