

Review of grey literature on drug prevention among young people

Review summary
May 2006

Introduction

The *Updated Drug Strategy* (Home Office 2002) highlights the marked growth in drug prevention initiatives for young people in the UK since 1998. The majority of primary (80%) and secondary schools (95%) have adopted drug education policies (Department for Education and Skills 2004) and drug education in schools is now widely available as part of the personal, social and health education (PSHE) curriculum. The National Healthy Schools programme* also includes drug education as one of its core themes.

The Connexions service, which, as part of its wider activities, identifies young people with drug problems and provides appropriate referral or support, now covers most of England (80%). Treatment is offered to young people with drug problems in most (80%) of the Drug (and Alcohol) Action Team (D[A]AT) areas and all Youth Offending Teams (YOTs) have named drugs workers available to support young offenders with drug problems. Positive Futures** has been offering diversionary sports and art activities to young 'vulnerable' people, and the

FRANK initiative (www.talktofrank.com) offers drug-related information to users and their friends and family.

A cross-governmental report, *Tackling Drugs – Changing Lives: Keeping Communities Safe from Drugs* (Home Office 2004), has summarised progress made against targets and describes a range of policies and interventions aimed at decreasing illicit drug-related harm by 2008. It states that drug-prevention programmes will be improved, drug education will be offered to all young people, and increased services and support will be available for those who are identified as key risk groups for drug use/problems. It also provides a framework for preventing harm associated with drug use from early years to adulthood.

However, the drug-prevention evidence base is still limited and predominantly focused on published work. For example, small(er)-scale projects that deliver local responses to these initiatives and strategies are catalogued on databases such as DEPIS* and EDDRA,** but gathering together learning from these interventions is rarely done. There is therefore a need to communicate potentially valuable approaches and successes to the wider field.

Prevention targeted at young people is most effective when designed and implemented

This review of grey literature on drug prevention for young people was undertaken by the Health Development Agency (HDA) but published after the functions of the HDA were transferred to NICE on 1 April 2005. Neither this summary nor the full report represent NICE guidance. The full report – McGrath Y, Sumnall H, Edmonds K et al. (2006) *Review of grey literature on drug prevention among young people* – is available at www.publichealth.nice.org.uk

* The National Healthy School Standard (www.wiredforhealth.gov.uk) has three strategic aims: to reduce health inequalities, promote social inclusion and raise educational standards. Themes include PSHE, citizenship, drug education (including alcohol and tobacco), emotional health and wellbeing, healthy eating, physical activity, safety, and sex and relationship education.
** www.drugs.gov.uk/young-people/positive-futures

* See the DEPIS section at www.dh.gov.uk
** <http://eddra.emcdda.eu.int>

in accordance with evidence-based principles of effectiveness. Drug prevention draws from wide-ranging areas of research, incorporating aspects of psychology, sociology, psychopharmacology, biological and behavioural sciences, public health, policy, culture and the media. Settings for interventions can be the school and/or the community (including community services such as primary care and criminal justice), and the intensity and lengths of a programme vary.

There are a number of programme approaches. Information dissemination provides knowledge about drugs (eg the effects of taking drugs). Affective education, on the other hand, aims to address intra-individual variables such as self-esteem. Project ALERT and LifeSkills Training (LST) programmes are popular school-based universal drug-prevention programmes that have been developed (and mainly delivered) in the USA. They aim to equip students with general and specific skills and abilities to overcome social influences to take drugs. Other programmes use art and sports to promote drug prevention and community engagement (eg Positive Futures). These programmes can be delivered by adults (such as teachers, police officers, health professionals) and/or young people (such as social and/or school peers), and the choice of facilitator can have important effects on the outcome (Mellanby et al. 2000).

It is beyond the scope of this review to provide a thorough narrative of contemporary drug prevention, but in initial attempts to build an evidence base, the Health Development Agency (now part of the National Institute of Health and Clinical Excellence, NICE) published an evidence briefing on drug prevention among young people (Canning et al. 2004). This systematically reviewed tertiary-level evidence* on drug prevention aimed at young people aged between 7 and 25.

Policy context

Drug-prevention interventions must be considered within the current policy context. The Every Child Matters Change for Children programme (2004)** aims to reform children's services to enable the services to reach their full potential, tackling

not only substance use but also the risk factors that may lead to substance misuse. 'Choose not to use illegal drugs' is part of the 'Be healthy' objective of the programme. This work is closely linked to the *Updated Drug Strategy* (Home Office 2002) and *Change for Children: Young people and drugs* (Department for Education and Skills 2005) sets out how the aims of the two strategies are to be achieved. This work contributes to the Public Service Agreement (PSA) target to 'Reduce the use of Class A drugs and the frequent use of any illicit drug among all young people under the age of 25, especially by the most vulnerable young people' (HM Treasury 2002). The *Choosing Health* public health white paper (Department of Health 2004) considers drug use in the context of general population health, and aims to improve the provision of health information and advice to young people.

Aims and objectives

The aim of this review is to complement the evidence base built by mainstream literature (eg Canning et al. 2004; Dusenbury et al. 1997; Tobler and Stratton 1997) for drug prevention among young people by systematically reviewing those drug-prevention materials that do not traditionally find their way into systematic reviews, namely grey literature. These materials were mostly published in the UK, although high-quality international studies were also considered if relevant.

There are three research areas for this study:

- highlight which interventions in the grey literature have the potential to prevent drug use and/or reduce drug-related harm among young people aged 7–25
- identify consistent findings/advice for effective good practice for young people aged 7–25 years both among the general population and for vulnerable groups
- identify gaps and inconsistencies in the evidence base and provide a direction for future research commissioning.

Alberani et al. (1990) defined grey literature as: 'All that non-conventional material including reports, theses, conference proceedings, technical specifications and standards, translations, bibliographies, technical and commercial documentation, and official documents.' The Third International Conference on Grey Literature

in Luxembourg in 1997, added: 'That which is produced on all levels of government, academics [sic], business and industry in print and electronic formats, but which is not controlled by commercial publishers.'

Grey studies have the potential to provide a topical and valuable description of current drugs activity (Fountain 2002). There are often protracted time periods between submission of a manuscript and peer-reviewed publication. As drug use is often a dynamic phenomenon and behaviours are locally determined, it requires a relatively rapid assessment to ensure efficient responses (Daniulaityte et al. 2004; Siegal et al. 2000). Reliance on peer-reviewed publications results in a delay of dissemination of useful information.

Moreover, unpublished studies tend to provide detailed information of process and implementation, both of which can be missing from scientific papers (Fountain 2002). These types of data can highlight important information such as barriers to implementation and the solutions to these barriers, which could inform practice. While the scientific evidence often provides a framework of plausibility for prevention interventions, practitioner knowledge and application provide a basis for understanding the likelihood of success of particular interventions. However, it is not possible to rely on traditional sources of evidence (ie peer-reviewed academic texts) to complete our understanding of practitioner experience, as they are rarely available.

One of the disadvantages of including unpublished studies in a systematic review is their quality. When some of these reports are systematically appraised, criteria for inclusion (and exclusion) and systematic appraisal need to be more tolerant than those for peer-reviewed articles. On the other hand, to be confident about the findings critical appraisal should distinguish between research findings which are based on robust methodology and those that are only suitable for providing contextual information, or which offer insights into ways of working. To assist with this process a set of suitable criteria was created based on papers that have reviewed grey literature (eg White et al. 2004) and those that provide guidelines for evaluating qualitative studies (Greenhalgh and Taylor 1997; Yardley 2000).

* Reviews and syntheses of existing systematic reviews and meta-analyses.

** See www.everychildmatters.gov.uk/aims

The methodology proceeded in several stages. Four search strategies were used to identify work:

- web searches (including online databases such as Mentor UK)
- consultation with the NCCDP network group of drug and health professionals
- consultation with Drug (and Alcohol) Action Teams (DATs and DAATs)
- use of specialist libraries and databases (eg DrugScope, Web of Science, MEDLINE, PsychInfo). The latter source was included to identify book chapters and supportive academic texts.

Reports were selected according to key inclusion criteria – for example, whether they were:

- outcome or process evaluations
- detailed universal, targeted and indicated prevention interventions
- descriptions of services in Tiers 1 to 3 of UK drug service provision. (Service provision in the UK is divided into four tiers, from Tier 1, universal and generic services, to Tier 4, specialised residential units/clinical intervention. See Burrell et al. 2005)
- focused on 'upstream' interventions that include learning from a range of non-

clinical interventions, eg reports of policy, sociological and psychological interventions and action research

- drawn from both UK and international settings.

A total of 290 documents were independently appraised by two reviewers according to specially developed quality criteria. Of these, 26 were considered to be of sufficient quality to be included in the review, 136 were judged to provide suitable contextual material, and 128 were rejected outright.

Review findings

With respect to the three research areas, the following findings were identified and appropriate recommendations made.

Highlight what interventions in the grey literature suggest a real potential to prevent drug use and/or reduce drug-related harm among young people aged 7–25

- Due to a lack of rigorously tested studies, it is difficult to determine the effectiveness of particular approaches or components of drug prevention identified in this review. Common methodological problems include the use of inappropriate outcome measures (eg self-reported learning), the absence of, or the presence of, non-equivalent, control groups, a reliance on self-report (eg recent drug use), and a lack of long-term measures.
- This review identifies a number of approaches to drug prevention among young people that could inform the planning of future interventions. Settings can be in a school or within a community; there are no reports of interventions within structured drug services. Content can be provided by classroom teachers, peers or contributors from external agencies. There is a range of intervention types (eg school-based skills training, drama and media interventions) and different types of interventions can be integrated to form a multi-component programme.
- School-based universal drug-prevention programmes that have a police input show some short-term effects in

increasing knowledge. This seems to support the evidence from the mainstream literature that police-led interventions are effective in increasing knowledge in the short term. However, it should be noted that the studies did not separately examine the effectiveness of the police component. Also, due to poor methodology in these evaluation studies, it is not possible to draw any firm conclusions about programme effectiveness. Further research is needed to determine the efficacy of these programmes.

- The use of drama is associated with a short-term increase in drug awareness, drug knowledge and attitudes towards drugs. This is not markedly inconsistent with the evidence from the mainstream literature. Theatre in education (TIE) approaches are found to be more effective than information dissemination methods in impacting on mediators (ie attitudes) of drug-use behaviour (see also Canning et al. 2004). However, it must be noted that these interventions are of short duration and it may be inappropriate to expect brief interventions to have a significant long-term prevention effect. Drama and theatre may be thought of as a form of delivery that holds the potential to interest and engage young people, but it must be integrated into existing programmes (eg curricular based), and adequate preparatory and follow-up work must be included if it is to have any lasting long-term impact.
- A well evaluated, long-term multi-component programme, NE Choices, was

not effective in preventing drug use.

This is inconsistent with the evidence from the mainstream literature, that multi-component programmes are effective in preventing drug use (Botvin 1999; Flay 2000; Lloyd et al. 2000). Although outcomes were disappointing, the thorough process and outcome evaluations associated with this work provide a rich source of material for developing future activities.

- It seems reasonable to conclude that LifeSkills Training (LST) does have some significant prevention effects. However, these effects are mainly limited to legal substances and the impact on the use of illicit drugs is small. Also, the effectiveness appears to be confined to sub-groups of young people, such as students, whose drug use is already low, and/or to those who received the complete programme. This is likely to exclude those young people already using drugs or those at most risk.
- Research findings reveal that drug-prevention programmes that are effective for young white people are similarly effective for black and minority ethnic populations. However, there is also evidence to suggest that adding components which increase the cultural sensitivity of the programme can enhance effectiveness. These findings are also consistent with evidence from the mainstream literature (eg Belgrave et al. 2004; Hawkins et al. 2004).
- Media interventions are not effective in preventing drug use if they are used as a stand-alone intervention. More positive outcomes may be gained if they are

included as a form of delivery in a multi-component drug-prevention programme, although this has yet to be assessed. More research is also needed to determine the efficacy of each type of media intervention (eg Internet, TV). The use of media advocacy warrants further investigation, as it has the potential to contribute to community drug-prevention efforts and to actively engage young people in local projects.

- The social marketing approach can provide a framework for targeted drug-prevention media campaigns. There is evidence to suggest that campaigns based on this approach can effectively reach the target group and communicate campaign messages to them, with some evidence to suggest that behavioural change can be effected.
- Drug prevention can be delivered by a number of different providers, each with the potential to make a unique contribution. For example, peer-led approaches are flexible and versatile as they can be used in a variety of places such as schools and community settings. Peer leaders can be students, drug (ex-)users, drug workers, youth workers, those from minority ethnic groups and people who are socially excluded. Moreover, peer approaches can have features that aim to benefit the peer leaders. Providers must be used appropriately and not be expected to deliver content outside their expertise or professional role (eg police officers should not deliver health messages). More research is needed to determine the effectiveness of each type of provider in preventing drug use.
- Police officers should play the role of expert visitors who support school-based drug education. However, this may require some effort and time as it will involve partnership working among the police, schools and other relevant organisations. There needs to be a mechanism that assesses the extent to which police input contributes to creating good collaborative relationships between the police and schools.
- There is no difference in the level of long-term effectiveness of types of external contributors. This suggests that it is the preparatory and follow-up work that is critical.

Identify consistent findings/advice for effective good practice for young people aged 7–25, for both the general population and vulnerable groups

- In general, it is more challenging to effect behavioural change than attitudinal or knowledge change. This is also true for measuring changes in behaviour, attitudes and knowledge.
- Some evaluation reports provide good process information, including satisfaction surveys with teachers, students and parents. Although process information does not include data on outcome effectiveness, it is an important source of programme information.
- Harm reduction rather than total abstinence from drugs appears to be the goal favoured by many programmes and studies reviewed. Reducing risk factors while improving protective factors for drug use not only benefits drug prevention but also leads to positive social improvement and maximisation of personal potential (Sumnall et al. 2006).
- Many evaluation studies have made great effort to carry out studies with control groups. These studies, however, did not have rigorous methodology to make the effort worthwhile.
- There are research findings that support a view that drug prevention can be effective whether it is based on a theory or not. However, the findings could mean that the theory is valid but that it was partially or wrongly translated in the interventions. Also, the fidelity of implementation of the programme could have been low. Other features of drug-prevention programmes (eg types of deliverer, intensity and teaching style) may play more important roles in prevention of drug use than the content of the programmes.

Identify gaps and inconsistencies in the evidence base and provide a direction for future research commissioning

- Overall, there is a lack of methodologically sound studies. Methodological problems include a lack of random allocation of participants (or schools) to conditions, a total reliance on self-report, a lack of long-term measures, and an inappropriate choice of control groups and outcome measures. However, it must be noted that poorly-conducted studies are not uncommon among mainstream studies (for discussion see Canning et al. 2004; White et al. 2004).
- More research is required to assess mechanisms of drug use, to determine internal, external and developmental factors to improve understanding of drug use and to enhance the efficacy of drug-prevention programmes.
- Further investigations are needed for multi-component programmes to assess their overall effectiveness and the relative effectiveness of each component.
- It is estimated that the social benefits derived from the prevention effects of these programmes exceed the cost of running the programmes. This is achieved largely because of the high social cost of drug use and not because of high efficacy in preventing drug use. The generalisation of this finding to the UK situation requires some caution and further investigation as the analysis in this study is solely based on research and survey findings from the USA.
- There is no difference in the level of effectiveness in preventing drug use for the long term among external contributors who support school-based drug education. This indicates that more research is needed to identify effective teaching methods that providers can employ.
- There are no studies that evaluated programmes aimed at young people aged over 16. This is a major gap in the evidence base as this is the age when drug use typically escalates. These programmes need to be evaluated for effectiveness.

The aim of this review is to increase the evidence base for drug prevention among young people by identifying and reviewing relevant grey literature. A quality assessment tool was developed and applied to the literature identified. The findings were expected to complement the existing evidence base (eg Canning et al. 2004), which has been predominantly built by researching peer-reviewed literature.

In general, many of the approaches reviewed correspond with those from the peer-reviewed literature, which suggests that some service providers are implementing the evidence base locally. However, from information included in evaluation reports it is evident that many projects are more likely to be based on intuition rather than evidence of effective practice, or they reference questionable research evidence and approaches. There is also misunderstanding about the relative value of mechanisms of delivery (eg theatre, media) and the actual content delivered. This results in increased focus on delivery at the expense of content. Many projects and authors also chose arbitrary outcome variables as indicators of success. While these allowed them to

conclude that there were successful outcomes according to the intervention aims, they do not contribute to more meaningful and generalisable discussions of the efficacy of the adopted/developed approach.

Of the 290 reports selected for initial screening (out of a total of 1339 identified by the search strategy outlined in the methodology), only 26 were considered robust enough to withstand scrutiny by the critical appraisal tool. This not only reflects the generally poor quality of the prevention evaluations examined, but also highlights the usefulness of the tool and the importance of subjecting literature (of all types) to this type of review.

Although the strict selection criteria limited the potential grey evidence base, only those studies of (relative) high quality were examined. While it is important to consider a variety of sources of evidence to drive prevention strategies, it is vital that only those that report well-designed and well-implemented projects are considered further. In this respect, the literature examined in this review did not add anything new to the evidence base, but adds value by describing

locally derived and adapted strategies that attempt to implement it. The problems faced by many projects trying to do so are clear and the review process is useful in identifying areas to which more attention should be paid.

There is a need for more effective communication and dissemination of the current evidence base. Similarly, many local projects require extensive guidance on evaluating their drug prevention work. (At the time of writing the UK Department of Health offers the DEPIs Plus service, an evaluation consultancy service providing individual consultancy support to meet the evaluation needs of drug education and prevention projects. See the Drug Education and Prevention Information Service (DEPIs) website at www.dh.gov.uk).

The commissioning of independent (eg university) researchers improved the quality of evaluations in some of the work reviewed, but this was often hampered by poor prevention intervention design and an apparent failure to include evaluation in the initial design of the project (ie evaluation was an 'afterthought').

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Authors of this review:

Yuko McGrath, Harry Sumnall, Kimberley Edmonds, Jim McVeigh, Mark Bellis

All authors are based at the National Collaborating Centre for Drug Prevention (NCCDP) at Liverpool John Moores University

Contact:

website: www.publichealth.nice.org.uk

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