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THEMATIC PAPERS

North American drug prevention programmes: are they feasible in European cultures and contexts?

Contents

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Key points

- The term 'cultural unfeasibility' is often used as an argument to oppose or discourage the adoption of North American (Canada and the US) evidence-based prevention programmes in Europe. Additional doubts about the programmes' effectiveness in Europe are grounded in reports about zero effect implementations in Nordic countries. However, in these countries, social problems (including substance use) are less prevalent and social protection and equality are higher than in the rest of Europe and North America.
- In reality, the publications and experiences of the implementers and evaluators of four evidenced-based programmes from North America in 11 EU Member States and Croatia suggest that these programmes are both feasible and effective (where outcomes are available) in non-Nordic countries. To achieve this, however, the implementers spent a considerable amount of time and effort to prepare, pre-test and consult with their target populations in order to adjust the programmes to culture and context. Nevertheless, most of them found it preferable to adapt an available effective programme than to develop a new one from scratch.
- However, adapting such programmes to other countries requires a differentiated breakdown of the often-vague term 'culture'. This paper suggests restricting the use of 'culture' to a set of norms and values, and to distinguish this from 'context', which describes social and political organisation. Even though both condition each other, it is helpful to address culture and context separately when adapting prevention programmes.
- An examination of social capital might help implementers to anticipate resistance from the target population that seem to result from history, culture and context. The level of trust of others and institutions, and the willingness to cooperate with them can heavily influence the readiness of drug prevention service planners, commissioners and providers, and the target population to adopt interventions and other behaviours. Conversely, prevention programmes might in turn increase social capital. Therefore societies with weaker social capital might profit most from novel interventions, even if initiating them might be harder. Introducing this third and novel aspect of 'culture' might seem rather academic and abstract to the readers of this publication. Yet as they can be measured, the dimensions of social capital can help to disentangle the nebulous notions of 'culture'.
- Programmes seem to have key principles that make them effective and that should not be modified in an adaptation: a particular example is the programme protocol. Other aspects, such as wording, pictures and the content of examples used to illustrate some issues do have to be modified and are essential for an intervention to be well-accepted and understood. In some programmes, the effective principles — so-called 'kernels' — are identifiable, although overall, prevention research still strives to identify them.
- A big challenge when transferring evidence-based programmes from North America is that these high-tech programmes are often seen as too demanding and complex by Europeans, who are used to shorter, simpler and more flexible interventions based on information provision or social and youth work. Recently developed European drug prevention quality standards might, however, help to steer prevention policies into new directions.

1 | Introduction

Some commentators ([1]) argue that programmes developed in one cultural context, such as North America (Canada and the US), are unlikely to work in Europe, because most of the evidence for their effectiveness is from North America. Many reviews question whether this evidence is applicable to Europe (e.g. Cuijpers, 2003; McGrath et al., 2006; Faggiano et al., 2008).

After discussing why Europeans tend to resist using interventions of North American provenance, this Thematic paper presents experiences of adapting and implementing four innovative and effective drug prevention programmes from North America to European countries. It explores different practical aspects and personal accounts of how the following allochthonous ([2]) programmes were implemented and evaluated in diverse European cultures and contexts:

Preventure, an Indicated programme in school settings for sensation-seeking young alcohol drinkers. Developed by Patricia Conrod in Canada, Preventure is currently being implemented in the Czech Republic, the Netherlands and the United Kingdom.

The Good Behaviour Game (GBG), a Universal classroom-based programme that sets and reinforces simple behavioural norms. It was developed in Kansas, has been implemented in Belgium, and is currently being implemented in the Netherlands and the United Kingdom.

Strengthening Families Program (SFP), originally a Selective family-based programme first developed by Karol Kumpfer and associates in 1983 in Utah in the US, the SFP was revised in 1992 into a shorter (and more universal) version (the Iowa SFP) by Virginia Molgaard. Versions of the SFP are currently being implemented in Germany, Ireland, Greece, Spain, the Netherlands, Poland, Portugal, Slovenia, Sweden and the United Kingdom.

Communities That Care (CTC), a community empowerment and planning approach that includes a set of Universal and Selective interventions to be implemented in and with communities. It was developed by David Hawkins and Richard Catalano in Seattle, Washington, is based on the Social Development Model by the same authors (Catalano et al., 1996), and is currently being implemented in Germany, the Netherlands, Sweden and Croatia. Also called Environmental prevention.

It is acknowledged that there are other important and evidence-based allochthonous programmes being successfully implemented in Europe, such as Triple-P (Positive Parenting Program), PATHS (Providing Alternative THinking Strategies) and PMTO (Parent Management Training — Oregon Model). The only reason for not including them in this paper is that they do not contain an explicit objective related to substance use prevention.

The four programmes discussed here cover the full range of the prevention spectrum and illustrate the innovation potential in the four prevention pillars (see box on p.5).

This Thematic paper aims to provide the reader with insights of the potential of technology transfer in prevention interventions. It argues that contextual factors are more identifiable and more malleable than the cliché of 'culture' as a barrier to implementation might suggest. The key question here is how varying contextual factors impact on programme implementation and effectiveness in the different cultures of a multifaceted continent such as Europe, and how successful programmes adapt to various contexts. Furthermore, the experiences gained during the adaptation and implementation of these programmes may help other practitioners to prepare for the main challenges when

([1]) See, for instance, http://findings.org.uk/
([2]) From another country or context.

implementing allochthonous programmes, especially concerning:

- the cultural characteristics of the target groups, such as differing beliefs and values, but also levels of education;
- the determinants of context, such as organisational differences in health, social and education systems, and the degree of community organisation and civic involvement; and
- aspects relevant for the implementation process, such as school cultures, professional cultures, and the training level and educational background of the professionals involved in the implementation.

Information from the relevant literature and from studies and evaluation reports of the programmes was utilised in this publication ([3]). Using a questionnaire survey in summer 2011, input was also collected from 18 people involved in the adaptation and implementation of the four programmes in 12 European countries ([4]).

The four prevention pillars ([1])

Environmental prevention strategies are designed to change the cultural, social, physical and economic environments in which people make their choices about drug use.

Universal prevention addresses entire populations, predominantly in school and community settings. It aims to reduce substance-related risk behaviour by providing young people with the necessary competences to avoid or delay initiation into substance use.

Selective prevention intervenes in specific groups, families or communities who, due to their reduced social ties and resources, may be more likely to develop drug use or progress into dependency.

Indicated prevention aims to identify individuals with behavioural or psychological problems that may be predictive for developing substance use problems later in life, and to target them individually with special interventions.

Environmental prevention is exemplified by CTC, Universal prevention by the GBG, Selective and Universal prevention by the SFP and Indicated prevention by Preventure.

([1]) Source: EMCDDA, 2010.

([3]) Evaluations of the European implementations of each of the four programmes can be found on the EMCDDA website (http://www.emcdda.europa.eu/themes/best-practice/examples) and critical comments and reviews of the programmes and their findings can be accessed at http://findings.org.uk/

([4]) Belgium, Czech Republic, Germany, Ireland, Greece, Spain, Netherlands, Poland, Portugal, Sweden, United Kingdom and Croatia.

2 | Advantages of implementing North American prevention programmes in Europe

The implementation of the more sophisticated drug prevention interventions is more likely to be set out in a manual (i.e. manualised) to assure accuracy of implementation. Such programmes are also more likely to have been pre-tested in order to confirm the validity of their theory base and to have been evaluated (at best with several replications) to avoid unintentional (iatrogenic) effects and to prove positive outcomes. Such interventions could be considered 'high-tech prevention', as their development and implementation requires specific know-how, research, repeated refinement procedures, quality control, proof of effectiveness, replication studies and some certainty that they do not harm. In medicine, most people would naturally expect such a level of 'technology assessment' with regard to medication before it is made available to the public.

Broadly speaking, high-tech programmes like the four discussed here are a more common approach to prevention in North America, and there is much research and other investment in order to improve them and to assure their effectiveness in replication trials. There is also important market competition between these programmes and their developers, as they are offered to service planners, commissioners and providers for a price. This might be due to structural differences: whereas in the EU, services such as healthcare and education are generally of high quality and available for all, this is less so in the US, so the need for complementary programmes is higher there. In Europe, such programmes are rare, especially outside classrooms. Rather, prevention strategies consist of varying (by country) combinations of local policies for vulnerable populations; isolated or combined activities for school-age youth to raise their awareness, self-competence, social skills, risk-perception and/or autonomy; events for parents; and youth work and counselling interventions for those with existing risky substance use patterns. Such approaches allow for innovation and adaptation to local needs and perceptions, but are sometimes based on little more than common sense and often lack evidence of both effectiveness and harmlessness. While Europe has a range of innovative and pragmatic selective prevention interventions for vulnerable groups, many of them are not rigorously evaluated. Few indicated prevention programmes are running, even though some well-evaluated and effective programmes exist (EMCDDA, 2009a, 2009b, 2010). Environmental prevention has gained momentum in some European countries, but remains unpopular (Burkhart, 2011) in many others.

3 | Barriers to implementing North American drug prevention programmes in Europe

At a first glance, there appear to be self-evident, practical advantages of favouring manualised programmes over isolated interventions and a freestyle arrangement of prevention activities. Established programmes are more likely to have been evaluated and to have proven their effectiveness in at least one context: they only need to be culturally adapted instead of being reinvented from scratch and usually come with resources, manuals and methodologies for training and easier implementation. However, in Europe the problems with using these high-tech programmes from abroad are often threefold: aversion to the standardisation inherent in manualised interventions; doubts about the validity of programme effects in another context (Fernandez-Hermida et al., 2012); and the belief that cultural differences between North America and Europe would make North American programmes unacceptable to European target populations. These issues are interrelated, because North American programmes tend to have manualised protocols and because culture and structural context are often related.

3.1 Rejection of manualisation

When interventions (especially those that are classroom-based) are manualised, they have a defined number and sequence of sessions with precisely described content for each, and are accompanied by manuals for the teachers (or whoever implements the sessions) and workbooks for the pupils. This implies a standardisation of prevention, which is well-accepted in, for example, Spain and in some German regions, but is opposed in many other countries (such as Denmark, Austria, and Finland) or in particular schools. In France, manualised programmes are not used at all.

A main concern about manualisation is that it gives the illusion that the contents are easily transmittable, while ignoring the 'soft skills' (Uhl and Ives, 2010) of the educator, whose empathy, motivation and charisma might be the real essence of a prevention programme's effectiveness. Another argument is that settings where the intervention is delivered (such as schools and youth clubs) have different resources, curricula and classroom (or club) climates and 'need to find individual solutions to their challenges and problems — advised and guided, but not prescribed and proscribed, by central government policy makers' (Ives, 2006, p. 390). These issues might have contributed to the difficulties in, for example, the United Kingdom with the implementation and evaluation of the Blueprint programme, a large-scale manualised prevention intervention (Stead et al., 2007): teachers did not always understand the thinking behind particular activities or eliminated interactive discussion elements. However, the issues did not substantially affect the outcomes of the European Drug Addiction Prevention (EU-DAP) trial, in which a manualised school-based prevention programme was implemented in seven European countries (Faggiano, Galanti et al., 2008).

The four North American programmes discussed here operate outside the traditional modus operandi of school lessons, but target families, communities and the classroom environment. They have different theoretical approaches and operate in different settings. They do not teach pupils, nor persuade young people to modify their behaviour or attitudes, but concentrate on essential personal or environmental determinants of behaviour, which most other prevention approaches do not address. They might therefore be highly susceptible to cultural influences when transferred to another country.

3.2 Replication, context and external validity

One of the main criteria for describing programmes as 'evidence-based' is the replication of their findings in other contexts. It cannot naturally be assumed that findings from academic efficacy trials — achieved under controlled conditions — can be repeated when applied in 'real life' (Holder, 2010).

There has also been fundamental criticism about the methods for establishing evidence in prevention programmes (Gorman, 2002; Gorman and Conde, 2007), to the point of calling prevention a 'pseudo-science' (Gorman, 2010). Even if this position is shared by only a few prevention research commentators, it raises the question of the level of evidence of efficacy a prevention programme needs in order to be recommended for further dissemination. Even if unacceptable from a purist viewpoint, it might neither be feasible nor wise to ask policymakers to wait for more and more replications when they are seeking to fund and advance the use of evidence-based prevention programmes rather than those without any scientific evidence of effectiveness (Aos et al., 2011).

Andreasson (2010) notes that in both Sweden and Norway, extensive efforts have been undertaken to implement evidence-based programmes — mostly originating in the US — without any demonstrable effects on consumption or harms. Some academics have recently questioned whether programme outcomes can be effectively replicated in different contexts and especially in different cultures. The term 'external validity' (Fernandez-Hermida et al., 2012) has been coined for assessing the generalisability, applicability and predictability (GAP) of intervention outcomes, because prevention interventions are complex social processes, which in themselves influence and are influenced by their social context.

Context, however, is constantly changing, and (Hansen, 2011) argues that it might be difficult to find any intervention that can be consistently demonstrated to work in both randomised control trials and in studies of implementations of the programme. Concretely, under 'context' we could subsume factors such as the density of inter-organisational ties within communities, the centrality of the agencies that will lead the intervention, the extent of context-level adaptation of the intervention, and the level of local resources contributed by participating agencies (Hawe et al., 2004). It is to be expected that the acceptance, success and sustainability of prevention interventions depend on conditions of social and political organisation. Interventions with an environmental perspective (Burkhart, 2011) especially need to adapt to such conditions once they have been identified, but even if culture and cultural history play a role here, distinctions should be made between context and culture.

3.3 Culture

There are concerns that North American programmes focusing on abstinence (Skager, 2007) disseminate this culture-bound concept of prevention when they are brought to Europe. These concerns are grounded in experiences with DARE-like ([5]) North American school-based prevention programmes, some of which have been implemented in the past 20 years in some European countries. However, even the comprehensive social influence model ([6]) on which European evidence-based prevention programmes are often based (Faggiano, Galanti et al., 2008; Faggiano et al., 2010) is sometimes referred to as 'US-style' ([7]).

In the ethnographic sense, culture 'encompasses all aspects of our behaviour that have evolved as social conventions and are transmitted through learning from generation to generation' (Deutscher, 2011, p. 9). Culture therefore also comprises historically developed values concerning social behaviour, civic engagement and trust in cooperating with others. Much of the diversity of social cultures in Europe is conditioned by history. For instance, the level of social capital (trust in fellow citizens and respect for community values) ([8]) appears to be higher in societies with historical traditions of self-governing communes and city states than in societies anciently ruled by monarchies with large feudal landholdings (Putnam et al., 1994). Recent studies corroborate this argument in the case of Italy today, where at least half of the gap in social capital between the north and south of the country has been attributed to the absence of free city states in the south in the 15th century (Guiso et al., 2008) and the ensuing divergent social developments.

The religious divide of Europe has strongly enhanced these cultural differences because the rise of Protestantism from the 16th century onwards yielded decisive importance to the idea of self-governance (Delumeau, 1967). The political self-organisation of communities accordingly became (and is now) more important in countries with predominantly Protestant

([5]) Drug Abuse Resistance Education, a series of classroom lessons led by a police officer, teaching resistance to peer pressure (http://www.dare.com).
([6]) Focussing on knowledge, life skills training and normative education, with interactive delivery.
([7]) http://findings.org.uk/
([8]) http://www.socialcapitalresearch.com

traditions, such as the Netherlands, Nordic countries and North America. Today, community-based and environmental prevention are clear and accepted concepts in societies with self-government traditions and are core principles of many North American programmes. In many European societies, however, community-based prevention has either no meaning or no translation, or is understood as the activities of municipal agencies and administrations, not necessarily implying civic engagement. Likewise, environmental prevention in the form of smoking and alcohol regulations or strong community norms seems to be better-accepted and agreed upon in traditionally self-governance societies where social control is acceptable (Burkhart, 2011), than in other European countries, where it is denounced as paternalistic and coercive (Uhl and Ives, 2010).

While such values have been formed by historical processes, they have become cultural values, and there is a lack of awareness of how political or religious contexts have formed them. These are not trivial when the adoption and adaptation of North American prevention programmes — especially those with a strong community and/or normative component — in Europe is considered. Therefore, culture (a set of norms and values) and context (social and political organisation) condition each other, but need to be addressed differently when adapting the programmes. This is illustrated in the following four sections: during the transfer of each of the North American programmes to another country, social organisation (context), values (culture) and the programmes' level of complexity (in their manualised curricula) created different challenges and lessons.

4 | Preventure

The Preventure programme is a brief, indicated school-based programme for adolescents that targets personality risk factors for early-onset substance use disorder and other risky behaviours: hopelessness, the tendency to unhappiness, depression and feeling a failure; anxiety-sensitivity, the fear of anxiety-related bodily sensations due to beliefs that they will lead to catastrophic outcomes; impulsivity, seeking gratification in the presence of immediate rewards despite longer-term negative consequences; and sensation-seeking, the desire for intense and novel experiences. Substance use can be a self-medication response to these personality traits.

The risk factors are assessed with a 23-item personality questionnaire, the Substance Use Risk Profile Scale. Young people who score one standard deviation above the mean on any of these traits are invited to participate in two 90-minute intervention sessions with, ideally, eight participants. On average, the selection method identifies 40% of the adolescents (aged 13–16) who are surveyed as candidates for the intervention.

The interventions, which are facilitated by a qualified clinician/counsellor and a co-facilitator, are designed to change how individuals with specific personality risk factors cope with their vulnerability. The interventions and the respective manuals include psycho-educational, motivational intervention and cognitive behavioural components, to develop coping skills.

First, psycho-educational strategies are used to teach participants about the target personality variables and associated problematic, personality-specific coping behaviours such as avoidance, interpersonal dependence, aggression, risky behaviours and substance use disorder. Participants are then guided in breaking down a personal experience according to the cognitive behavioural therapy (CBT) components of an emotional response (thoughts, feelings and actions). Finally, participants are encouraged to identify and challenge personality-specific cognitive distortions that lead to problem behaviour that includes aggressive thinking and non-thinking in the case of impulsivity; internalisation, over-generalisation, biased thinking and false conclusions in the case of hopelessness; chasing the fun ('all or nothing' thinking) and the need to stand out in the case of sensation-seeking; and catastrophising, which is overestimating the probability of problems and thinking the worst in the case of anxiety-sensitivity.

In the original cluster randomised trial in Canada, called Adventure, teachers were trained to deliver these interventions. Training included a three-day workshop reviewing principles of cognitive behavioural therapy, motivational enhancement therapy, and general counselling and techniques specific to the Preventure programme, followed by a minimum of four hours supervised practice of running a full intervention.

Preventure has been implemented in the United Kingdom by the developer, Patricia Conrod and tested in several trials (Castellanos and Conrod, 2006; Conrod et al., 2006, 2008, 2010, 2011) . It has been adapted in the US for high-risk American Indian youth as Project Venture, which, besides the classroom-based problem-solving and skill-building activities, also includes outdoor, adventure-based experiential activities such as camps and treks.

4.1 Findings and outcomes from trials

Preventure is grounded in previous intervention research (Conrod et al., 2000) indicating reduced frequency and severity of problematic alcohol and drug use when motivational and coping skills training courses are matched to the personality profile of the clients and their specific motives for substance use. The original intervention in Canada consisted of 90-minute sessions at lunchtime (with lunch provided) in single gender groups of 14- to 18-year-olds (mostly Caucasians) and was delivered to grade 9–12 pupils by trained facilitators and co-facilitators. This first version of the intervention did not include the specific focus on impulsivity. It reduced drinking rates, drinking quantity, binge drinking, and problem drinking

symptoms in secondary school pupils, at least in the short term (four months) (Castellanos and Conrod, 2006).

One trial of the United Kingdom version of Preventure found reduced uptake of cocaine and other drug use and a reduced frequency of drug use overall over a two-year follow-up when Preventure was implemented by skilled therapists (Conrod et al., 2008). An analysis of long-term effects six months after the intervention (Conrod et al., 2011) reported that the participants had a less steep increase of average alcohol consumption compared to the controls. Largely due to Preventure's impact on pupils with anxiety-sensitivity, it significantly reduced the need to drink in order to cope with difficult feelings, even at follow-ups after one and two years.

Another United Kingdom trial (O'Leary-Barrett et al., 2010) tested the real-life feasibility of the programme. This was delivered by school staff trained in a three-day workshop, followed by at least four hours of supervised practice and feedback on their performance while practising the full intervention with pupils (ages 13–14) from their schools. The above findings on less steep increases in consumption and binge drinking were replicated. A second set of analyses focused on those pupils drinking at the start of the study and found, with a statistically significant difference, that the likelihood of later drinking fell heavily in Preventure schools, but rose in control schools. Preventure participants were also consuming less alcohol overall, and were less likely to report alcohol-related problems. Thus, Preventure continued to be effective, even when it was implemented by non-specialists (teachers, rather than therapists).

All the trials were randomised, using the selection procedure for participation described earlier. For young alcohol drinkers at baseline, findings suggest that only from four to six young people need to be exposed to the intervention in order to prevent one from later heavy drinking. This number-needed-to-treat (NNT) is much more favourable than previously achieved in most universal prevention programmes of longer duration, and which target all the young people in a population rather than focusing only on those at risk. Preventure showed also effects beyond alcohol use (Castellanos and Conrod, 2006): a moderate effect of the negative thinking intervention on depression scores, and a similar effect of the anxiety-sensitivity intervention on panic attacks and truancy. In addition, a small significant effect on shoplifting was found for the entire sample.

Commentators (9) hypothesise that the Preventure programme might be hard to implement on a larger scale because it requires teachers to be trained for three days followed by at least four hours of supervision.

4.2 Implementation in Europe

See Map on p. 19.

The target populations in all European implementations of Preventure were similar to the original, with age ranges from 12–16. There were 800 participants in the United Kingdom and 200 both in the Czech Republic and in the Netherlands. All the European sites differed from the original by targeting a more urban population. Structural difference mattered in the Czech situation because of the different terminology, school system and community services; in the Netherlands because schools are not used to selecting pupils and organising separate groups; and in the United Kingdom because of problems obtaining parental consent for children to participate.

Psychologists delivered Preventure in all three European sites, but the United Kingdom programme also has a teacher-implemented version and in the Czech Republic, education professionals with training in behaviour disorders will deliver it in the future. The deliverers in all sites received two to three days of training by the developer Patricia Conrod (who delivered the original programme in Canada, and in some of the sites in the United Kingdom).

4.3 Adaptations made

All implementers adapted the Preventure manuals by means of focus groups with the adolescents in order to make some situations, pictures and descriptions more understandable and better related to the school and cultural context concerned. However, the programme protocol itself needed no changes.

Adapting the programme to Dutch cultural and social norms took much more time and was not only a matter of translation, as schools and pupils were less willing than those in the United Kingdom to participate. The procedures of selecting the pupils and explaining this to them and their parents also presented challenges. In

(9) http://findings.org.uk/count/downloads/download.php?file=Conrod_PJ_5.txt

the Netherlands, medical ethical procedures had to be followed to prevent stigmatisation of those selected for the programme.

The most important lesson that the implementers report is that the adaptation of the manuals (in rounds of feedback discussions with the young people) and the training of the counsellors took considerably more time and effort than expected. The implementers strongly recommend pre-testing the materials and tightly monitoring implementation and fidelity to the original.

4.4 Evaluation experiences

The English and Dutch survey participants reported on outcome evaluations of Preventure, similar to the original evaluations in Canada, while the Czech study is conducting a process evaluation. The United Kingdom trials have longer-term effects, on a wider range of outcomes than the Dutch trial, not only in reducing problems but also in preventing them, because they included younger adolescents who did not drink alcohol. In the United Kingdom, the programme developers were heavily involved in the implementation process and conducted the sessions with the pupils themselves. This might have influenced the impact of the intervention.

Attrition (participants leaving the study) was the biggest challenge in both outcome evaluations. The Dutch and English researchers needed to make several visits to schools and provide convincing rationales for participants to stay in the evaluation study.

4.5 Transferability of Preventure from North America to Europe: summary

- All the researchers found that the implementation of Preventure is feasible in urban locations, provided there is good quality training of the implementers, good quality monitoring of the implementation, and that cultural and social differences at national and setting (school) levels are taken into account. All the researchers considered it advantageous to implement an evidence-based programme using its materials and experience, regardless of where it was developed.
- The major challenges to the transfer of this programme from Canada to Europe concerned the structural and organisational environment of schools.
- Few adaptations to the content of Preventure were needed and the structure of the curriculum did not need changing. The adaptation to culture per se could be achieved in repeated rounds of focus groups.
- Most of the workload was not so much due to implementing the programme itself, but in overcoming the resistance within schools to a sophisticated and resource-intensive intervention.

5 | The Good Behaviour Game (GBG)

The Good Behaviour Game (GBG) is not a typical lesson-based classroom prevention programme, but rather a way of managing whole primary school classes during regular lessons and socialising children into a role of being self-controlled school pupils. The GBG promotes the following of rules, pro-social behaviour and peer concern for classmates by rewarding teams for maintaining behaviour standards. By these means, it aims to reduce aggression or disruptive behaviour, which are known to be related to later substance use and dependence and to antisocial behaviour. The programme is rooted in life course/ social field theory (Kellam et al., 1998), which emphasises the role of significant others (teachers and peers in the school context) in children's social adjustment and makes use of techniques based on (social) learning theory.

Before the GBG is implemented, teachers model expected behaviours, instruct children on the meaning of rules, and guide groups as they work together, making sure that the children understand how the rules apply in various teaching settings and formats. To play the GBG, the teacher divides the class into teams of four to seven pupils, with equal numbers of girls and boys when possible, with behaviour (e.g. aggressive, disruptive, or shy and socially isolated) and learning attributes distributed equally between groups. The GBG begins with the teacher instructing children on four class rules: working quietly; being polite; only getting out of seats with permission; and following directions. These rules are precisely described and posted where they can be seen by all the children. The teacher sets up the game by reviewing the class rules with the children, setting a time for the length of the game, and announcing its start. As the children work on their regular lessons, the teacher observes and places a mark next to the name of the team whenever one of its members breaks a rule. After a set time, the teacher ends the GBG by counting the number of marks each team earned, and rewarding those with four or fewer: all teams can win if they meet this standard.

At the beginning of the school year, the GBG is played for approximately 10 minutes, three times a week. By the end of the year, the game is played for 30–40 minutes several times a week, with the criteria for winning remaining at four or fewer marks. The rewards change over the course of the year, from being tangible (such as stickers or pencils) to being more natural to classroom settings, such as extra time to read during the school day. By the end of the year, the game is played at various times throughout the day and during various activities. In this way, the protocol evolves, moving from playing the game at regular intervals and predictable times with tangible and immediate rewards, to being played at more unpredictable intervals and times of day with intangible, deferred rewards. Since it is a management strategy rather than a curriculum, the GBG is integrated into the curriculum and no additional teaching time is required.

5.1 Findings and outcomes from trials

Developed by a teacher at the University of Kansas more than 35 years ago, the GBG has been systematically studied in a large number of research projects. It was tested in first- and second-grade (ages 6–8) classes in Baltimore primary schools. The impacts on substance-related and other problems were assessed 14 years later, when the participants were aged 19–21. Three generations of randomised controlled trials reported beneficial impact until into the middle school years and even young adulthood (Ialongo et al., 2001; Kellam et al., 2008; Petras et al., 2008). These impacts included reductions in diagnoses of alcohol and drug dependency disorders, and of antisocial personality disorder (Kellam et al., 2008; Petras et al., 2008); reduced delinquency and imprisonment, regular smoking, and suicidal ideation and attempts (Wilcox et al., 2008); reduced use of services for behavioural, drug, emotional and school learning problems; and reduced risky sexual activity such as unprotected sex (Poduska et al., 2008).

A more recent analysis of the GBG (Petras et al., 2011) used a novel application of a statistical hybrid model — a combination of the growth mixture model (GMM) and latent transition analysis — for the evaluation of proximal and distal effects of the game. The model allows for investigation of the influence of an early developmental process on later outcomes. As consistently found in previous studies on the GBG (Kellam et al., 2008a; Petras et al., 2008a), Petras et al. (2011) also reported a relative lack of intervention effects for girls and that the effects were greater for the most vulnerable (i.e. those elementary school children with higher levels of aggressive or disruptive behaviour). This outcome might in turn explain the lack of effects for girls, except for suicidal thoughts, because fewer girls than boys display high levels of aggressive/disruptive behaviour (EMCDDA, 2009b). This finding — that an intervention works particularly well among individuals with higher levels of the risk factors — is a common finding in studies of universal interventions (Petras et al., 2011). The GBG's differential effects (stronger for the more vulnerable children) are achieved without the labelling and possible stigmatisation that occurs with Preventure participants.

Another particularity of the GBG is that substances and substance use are not explicit themes. Its only content is socialisation: the way children grow into their first formal relationship with the outside world. In addition, the children themselves define the behaviours to be rewarded in the game, as the teacher asks them at the beginning what would make the classroom a good, enjoyable and pleasant place to learn. Particularly noteworthy is that children are able to cover up to 25% more curriculum material during the game because the whole class's behaviour is less disruptive than previously (Embry, 2002).

A recent Cochrane review reports that the GBG is among those universal programmes for the prevention of alcohol use by young people that 'can be effective and could be considered as policy and practice options' (Foxcroft and Tsertsvadze, 2011a, p. 2). It is one of the few prevention programmes in which the beneficial effects persist from childhood through to young adulthood. These effects were shown to be greater and more consistent in the initial implementations, when the teachers were freshly trained and maybe more motivated (Kellam et al., 2011). An alternative explanation could be that the GBG is more effective in disruptive or less well-managed classrooms. When these classroom conditions improved due to the GBG, the effect of the intervention itself became less pronounced. In schools with a healthy and positive learning climate, the GBG would therefore be expected to be even less effective and ultimately superfluous.

The GBG has been implemented in Belgium, the Netherlands and the United Kingdom. All the European implementations were studied in controlled trials, with the United Kingdom process evaluation currently ongoing.

The Dutch randomised trials, involving over 600 children (van Lier et al., 2004, 2005, 2009), showed that the GBG participants had lower probabilities of tobacco use at ages 10–13, despite that effects on substance use are normally not expected at this early age. The effect was significant even when controlled for (male) gender, baseline levels of conduct problems, exposure to pre-natal smoking or current parental smoking. As in the original US trials, there was a link between disruptive problem behaviour and tobacco use initiation. More direct evidence on this link was provided by (Huizink et al., 2009), who found that the reductions in tobacco use in 10- to 11-year-olds were mediated by GBG-induced reductions in Attention Deficit Hyperactivity Disorder (ADHD) symptoms. Reductions in drinking reached statistical significance only for past-week drinking. This suggests that the GBG prevented alcohol use among children who were at risk of more frequent use, probably because disruptive behaviour problems relate only to the higher levels of alcohol use (Van Lier et al., 2009).

The outcomes of the Belgian trial (Leflot et al., 2010) also showed a marginally significant reduced growth of hyperactive behaviour and a significant decrease in the growth of oppositional behaviour from the beginning of the second to the end of third grade among the GBG children when compared with controls. Leflot et al.'s main interest, however, was to examine the role of teacher behaviour management in the development of disruptive behaviours. They aimed to discover how the GBG achieved the previously documented outcomes by examining the mediating role of teacher behaviour on children's development of hyperactive and oppositional behaviour. The teachers seemed to have internalised the GBG techniques, because they also praised good behaviour and made less critical remarks on disruptive behaviour during normal (non-GBG) lessons, which is an important finding for practice. The reduced negative remarks (but not the increased positive remarks) predicted an increase in on-task behaviour (concentration on tasks) and a decrease in talking-out behaviour (uninvited

comments and interruptions). Such improved classroom behaviours in turn mediated the intervention's impact on the development of hyperactive and oppositional behaviour. These results were similar for girls and boys. According to the authors, teachers rarely had planned preventive and educational approaches to discourage disruptive behaviour and promote adaptive behaviour. They therefore tended to react with irritation and coercion when confronted with problem behaviour. This in turn might increase the risk of (unintentionally) reinforcing the child's disruptive behaviour, which contributes to the further development of hyperactive and oppositional behaviour.

The effect of the GBG on teachers' behaviour management, on-task and disruptive classroom behaviours, and teachers' mediating role in the effect of the GBG on children's development had not been previously reported in GBG research. The findings of Leflot et al. (2010) imply that changing the teachers' behaviour management is just one additional pathway to prevent the development of disruptive behaviour, while the change in the children's classroom behaviour may be the most essential mediator, because disruptive behaviours are likely to be formed by social interactions with parents, peers, teachers, and other socialisation agents. Witvliet et al. (2009) also found peer acceptance to be an intervening variable of the effect of the GBG on hindering the development of children's externalising behaviour (lashing out at others in an aggressive, impulsive, coercive, and noncompliant manner).

Apart from the Belgian study, implementation of the GBG programme in Europe seems to be recorded only as a yes/no, tick-box response indicating whether or not it is implemented. This has led to what evaluation research terms a 'black box': there are no data from the Netherlands and the United Kingdom on the characteristics of the programme (requirements, logistics, materials), nor on the level of implementation (how often, for how long and how well the methods were applied). Important insights into the GBG are therefore missing, including how teachers are trained, what effect this training has on programme fidelity, and what effect this fidelity and the changed behaviour of the teachers has on the behaviour of the children in the classroom in terms of task-oriented and rule-breaking behaviours. Such information is imperative when prevention programmes are going to be further implemented.

5.2 Implementation in Europe

See Map on p. 19.

Table 1 shows participants in the GBG in the US and Europe.

Table 1. GBG participants

Location	Age (years)	Population (N)	Other participant characteristics
US (original implementation), 1985–2000	6–8	1 000	Poor to lower middle class, mainly African American residents of urban areas of Baltimore
Belgian trial, 2006–08	7–9	575	Schools in rural to moderately rural communities, ethnically homogenous (i.e. white with Belgian nationality)
Dutch trial, 1999–2009, and nationwide implementation	4–16	200 000	Similar to the US participants, but also including pupils in after-school care centres and in special education schools
United Kingdom trial, 2010, ongoing	4–8	250–275	Predominantly white British

In Europe, the differences in geographical and social context compared to the original US GBG implementation were minor, although the Belgian and United Kingdom schools were less metropolitan and involved smaller schools in more rural areas. In terms of the economic differences between the countries, the Dutch and Belgian situations reflect solidarity-based European systems, with higher income taxes and less differences between highest and lowest incomes than in the US and in the United Kingdom. The higher inequalities did not affect the implementation in the United Kingdom, however.

The Dutch adaptation involved a broader range of school types than the GBG in the other countries: special education schools for 6- to 16-year-olds and

after-school care centres for 4- to 14-year-olds were included. The GBG was implemented nationwide, with around 200 000 pupils involved. By including special education schools, more children with mental health problems were included, and in the after-school care centres, the intervention was implemented in much less structured pedagogical environments than elsewhere.

In all three European countries, specially trained teachers deliver the GBG. The Belgian version closely follows the Dutch adaptation of the GBG because Dutch is spoken in the Belgian regions where it was implemented. The trainer in the Belgian study was trained at the Centre for Educational Services in Rotterdam, where the Dutch version was developed. The teacher training in the United Kingdom was initially provided directly by trainers from the American Institutes of Research (AIR) and then by lead trainers and the GBG coaches in Oxford.

5.3 Adaptations made

The survey participants' responses indicate that the Dutch and Belgian implementations appear to be stricter than the original in terms of fidelity to the rules: the GBG implementation in these countries has to be guided by a licensed counsellor who is required to give three teacher training sessions, conduct ten individual classroom observational visits followed by discussion, supervise the teachers, and control the programme implementation. The guidelines for supervision and implementation of the programme also seem to be stricter in Belgium and the Netherlands. The adaptations have modified the original protocol in essential aspects in these two countries: the competitive nature of the GBG and a focus on punishing undesired behaviour were seen as 'typically American' and unacceptable to teachers. The element of competition was therefore abandoned, only positive feedback was used and teachers did not comment on undesired behaviour. It was argued that this strategy conforms more to learning theory and insights from motivational psychology than the original US version. In addition, in the original version, a list of rules and incentives is predefined and imposed by the teacher, whereas in the adapted version, the pupils themselves assist in choosing the rules and the incentives by making their own list. This was expected to promote pupils' autonomous motivation to comply with their own rules.

In the Dutch adaptation, a number of cards were distributed to each team before the start of the game: when a pupil violated a rule, the teacher did not place a mark next to the name of the team, as in the US version, but took away a card. Teams with at least one remaining card at the end of the game got a reward (a sticker on their team poster). Not only were these rewards emphasised, but it was also essential that the teacher complimented individual children and teams when they followed the rules during the game. Using delayed reinforcement schedules (i.e. giving the reward at the end of the game) enhanced the motivation of the whole group to control each other's behaviour throughout. Another difference between the Dutch and the US versions of the GBG is that learning attributes and gender are not taken into account when composing the teams, only levels of the pupils' disruptive behaviour.

In the United Kingdom, it was felt that the GBG did not require many changes in order for it to be implemented and the protocol was only modified in terms of changing some US wording and expressions to United Kingdom English. Contrary to the Dutch adaptation, which introduced more positive reinforcers, the use of positive reinforcement was particularly unwelcome to a few teachers in the United Kingdom, who felt it was very 'cheesy and American'.

5.4 Problems and their solutions

The survey participants reported that teachers in the United Kingdom did not see much sense in data collection and reported patchily, and the Belgian school staff in general were not very sensitive to the argument of 'evidence-based' practice and some resisted working with standardised protocols. The Belgian teachers also perceived the GBG as interfering with daily school routines, saying that it was sometimes difficult to find the time to play the game three times a week. In the United Kingdom, too, teachers thought playing the game five times a week was too demanding an objective, although some of them were playing it three to four times a week for up to 30–40 minutes per session.

The survey respondent from the United Kingdom reported that teachers would have seen even greater impact and positive behaviour changes — i.e. keeping their corrective interactions with the pupils to a minimum — if they had seen their coaches more consistently. In this case, more of the problems with discipline and resistance could have been solved and challenges addressed sooner. In all cases, the implementers could reduce these problems by keeping close and continuous contact with the teachers and by

using motivation techniques, continuous feedback and group discussions.

Persistent obstacles to implementation were of a financial nature. In the United Kingdom, there was no funding for coaching, materials, nor cover for teachers when they were away from the classroom during training. As teachers and schools were receiving the GBG programme and the coaching service from the implementers at no cost, this devalued the programme in many ways and led to many cancellations of training meetings and a lack of dedication by the teachers and the schools. For similar financial reasons it was not possible to extend the GBG in Belgium, despite the successfully concluded trial in Flanders.

In the Netherlands, schools buy guidance from their educational guidance centres at prices comparable with the commercial sector, whereas in Flanders, schools receive educational guidance in terms of a fixed number of staff hours from pedagogical guidance centres (with staff mainly consisting of teachers) and pupil guidance from centres for pupil guidance (with multidisciplinary staff, including school psychologists). Both services lack the time and resources to guide teachers in implementing the GBG. The centres for pupil guidance have the appropriate psychological know-how to do this, but they are mainly focused on individual pupils' problems. Therefore the educational and pupil guidance organisation in Flanders does not allow the GBG to be implemented as demanded by its protocol. The training costs in the Belgian version of the GBG are comparable to prices in the commercial sector and very high compared with the costs of other prevention programmes in the country. This seems to be the reason why, after the successful trial, the GBG is currently not implemented in Belgium. In addition, there is no institute in the educational system to carry out the training and supervision of the teachers, unlike in the Netherlands. This is an example of how different educational and student counselling systems can hinder the sustainable transferability of a programme.

5.5 Evaluation experiences

The evaluation of the Netherlands GBG analysed process aspects of the implementation: training aspects (intensity, frequency, regularity) and the extent to which undesired behaviour was ignored and desired behaviour rewarded (the so-called positive-negative ratio). Similar to the Belgian implementation, the major factor in the programme's success appeared to be the reduction of negative comments by the teachers, although there was, in contrast to the Belgian implementation, no increase in positive comments. The measures for implementation, strength and fidelity showed very little predictive value for the intervention outcomes of the GBG pupils. The Netherlands version of the GBG therefore appears to be a sufficiently robust intervention and effective under the less than optimal conditions of a large study. The United Kingdom process evaluation assesses the feasibility and acceptability of the US model in the United Kingdom and therefore does not allow for conclusions as to whether or not the GBG was an effective intervention. As discussed in detail above, the Belgian study (Leflot et al., 2010) is the first to report on the GBG's effects on behavioural observations.

The problems in the United Kingdom reported by the survey participant consisted mostly of teachers' incomplete data collection and lack of fidelity to the original in terms of not playing the game as prescribed. Similarly, Belgian teachers felt overloaded by having to complete evaluation questionnaires for all pupils in a classroom. However, as the Dutch evaluators noted, distributing self-reporting questionnaires is less labour-intensive than conducting behavioural observations in the classroom.

In all three European sites, it was noted that training for teachers and sufficient on-the-job coaching is crucially important to ensure they will compliment desired behaviour. This is ultimately a question either of sufficient additional funding — i.e. the implementer charges the school services, as in the Netherlands — or having sufficient public support structures in place.

While financial and structural obstacles seem to be the biggest issue, some culture-bound perceptions might have an unexpected impact. The Belgian process analysis showed that it was the reduction of teachers' negative remarks (rather than their increased use of positive reinforcement for desired behaviour) that actually mediated the positive distal outcomes in child behaviour. As discussed earlier, the adaptations in Belgium and the Netherlands eliminated negative sanctions from the curriculum and focused on reinforcing desired behaviour. This did not cause problems among teachers during the implementation in these countries. However, it might be a considerable cultural barrier to the implementation of the GBG in the United Kingdom, where some teachers think that the use of praise and other positive reinforcers (which are essential ingredients of the GBG) are unacceptably 'American'. Nevertheless, and contrary to the findings in Belgium and the Netherlands, the teachers in the

United Kingdom increased their use of positive reinforcement for good behaviour.

Overall, the survey participants from all three implementation sites were convinced that the GBG could be implemented in their countries, even though for large-scale dissemination in Flanders, some changes in the pupil and educational guidance system and/or considerable extra funding would be needed. Even if the necessary funding for wider dissemination in the United Kingdom might not be secured, many schools are expected to take the game forward as a behaviour management strategy and to adapt certain components (such as the class rules) across the whole school.

The GBG experience in Europe has shown that transferring a programme from North America provides an idea of the types of successes and challenges that might occur in another country or context, especially when a strong evidence base for the programme or model exists. With such an evidence base, there is a fair chance for the adaptation to be effective, and less need to develop a new programme. All three survey respondents therefore consider it generally feasible to use allochthonous programmes, provided they are redeveloped to the context, not simply translated into another language. This approach is much more efficient than developing a completely new intervention.

5.6 Transferability of the GBG from North America to Europe: summary

The studies on the GBG have added important insight about the connections between behavioural adjustment in early childhood and later substance use and behavioural problems. These, and the potential for successful prevention interventions, were previously little known in Europe. The findings presented above also remind us of previous findings on the protective effects of the school environment in general (Bonell and Fletcher, 2007; Fletcher et al., 2008). More specifically, they reiterate that the skills of teachers in managing children's behaviour in the classroom might be more important factors for the effectiveness of manualised programmes than previously assumed. The GBG provides evidence for the long-term preventive effects of intervention components, which improve the professional functioning of adults such as teachers, so that they can prevent or respond more efficiently to problems.

- The universally applicable core principle of the GBG is that the game treats the classroom as a community where the teacher has a very central role in setting the rules for a pupil to be successful. The children themselves exercise social control and operate as a team, so that well-behaved children were seen in the trials to influence and socially integrate children who behaved less well.

- The school system and philosophy is decisive in establishing the extent to which schools consider each child's progress in emotional and behavioural development (including their special needs), and record this over time.

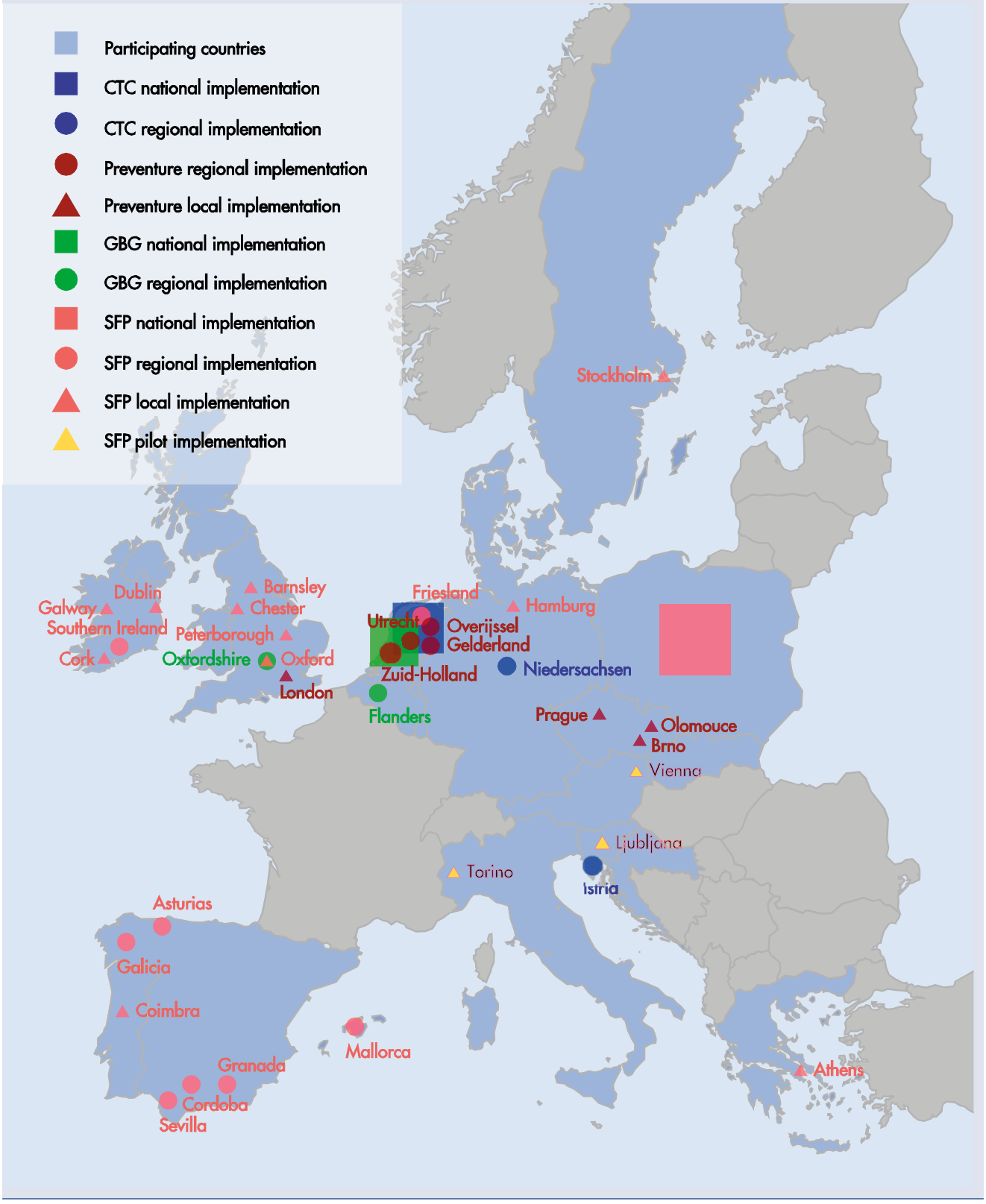
- While the programme itself seems to be simple to implement, large-scale implementation in Europe appears to be hindered by the demanding training, licensing and certification needed. However, sufficiently intensive training is considered to be very important to achieve real changes in teaching style such as changing from negative to positive strategies for behavioural control.

- Many countries in Europe have GBG-like principles for the classroom environment in their guidelines for schools, although these are not manualised, are not always consistently applied and teachers are not specially trained to implement them as they are in the GBG programme. Experiences of the transfer of the GBG to Europe seem to confirm again that a major obstacle for Europeans is the prescriptive, detailed format of the programme, which they tend to reject as a mechanical system of rules, rewards and sanctions. As one survey participant put it, Europeans prefer pupils to learn social and emotional skills by themselves and to take responsibility for their own behaviour.

- None of the European sites found that disruptive children gained 'rebel' kudos from disregarding the GBG rules. On the contrary, the GBG has stronger effects on the more vulnerable (aggressive) children without singling them out, as indicated prevention programmes by definition have to do: this aspect of the programme might reduce stigma.

- One survey participant suggested combining the GBG with other interventions focusing more on social and emotional skills, in order to make it more acceptable in a European context. One of the shortcomings of the GBG is that it is exclusively focused on behaviour and is strictly based on learning theory.

Map of the implementation sites of the four prevention programmes in Europe



6 | The Strengthening Families Program (SFP)

The Strengthening Families Program (SFP 3–5, SFP 6–11, SFP 12–16) by Karol Kumpfer (1998) is a prevention programme for parents and children aged 3 to 5, 6 to 11 and 12 to 16 in high-risk families. The original SFP (Utah version) consists of parenting skills training, children's life skills training, and family life skills training, taught together in fourteen two-hour group sessions preceded by a meal that includes informal 'family practice time' and group leader coaching. The SFP was first designed in 14 sessions to assure sufficient 'dosage' to promote behaviour change in high-risk families. The shorter and quite different seven-session SFP 10–14 Iowa version by Molgaard et al. (2000a), with some input by Kumpfer for application with all populations, has achieved significant results with a lower dosage.

Originally, the SFP was designed as a selective intervention for 6- to 12-year-old high-risk children of substance-using parents and evolved later into several versions, including those for universal use and with other age groups. It has also shown positive results with high-risk children whose parents do not have drug or alcohol problems (Kumpfer, Xie et al., 2012). In the US, the SFP has undergone several adaptations to make it more appealing to African American, Asian and Pacific Islander, Hispanic, and American Indian families.

The SFP sessions include the critical core components of effective evidence-based parenting programmes: sessions with parents and children together, learning positive interactions, communication, and effective discipline. An essential feature of the programme is that it involves not just parents nor children alone, but the whole family in three parallel courses for parents, children and the family.

The parent skills training sessions review appropriate developmental expectations; teach parents to interact positively with children, such as showing enthusiasm and attention for good behaviour and letting the child take the lead in play activities, and increasing attention and praise for children's positive behaviours; positive family communication, including active listening and reducing criticism and sarcasm; family meetings to improve order and organisation; and effective and consistent discipline including consequences such as 'time-outs'.

The children's skills training content includes sessions on communication skills to improve their relationships with their parents, peers and teachers; hopes and dreams; resilience skills; problem-solving; peer resistance; identification of feelings; anger management; and coping skills.

The family life skills training sessions allow the parents and children time to practice what they learn in their separate sessions, using experiential exercises. This is also a time for the training group leaders to coach and encourage family members to improve parent-child interactions. The major elements are the child's game, similar to therapeutic child play, where the parent allows the child to determine the play or recreational activity; family meetings and effective communication exercises; and the parent game on effective discipline. Home practice assignments improve the new behaviours at home. Outcomes include increased family strengths and resilience and reduced risk factors for problem behaviours in high-risk children, including behavioural, emotional, academic and social problems, as well as reductions in substance use, conduct disorders, aggression, violence and juvenile delinquency.

Based on their research, the programme developers indicate the following conditions for successful replication of the SFP:

- Implementation of all three components: parent skills training, children's skills training, and family life skills training, conducted in 14 two-hour sessions.
- Implementation by experienced or effective group leaders who are also genuine, warm, and empathetic.
- Incentives for participation and programme completion, such as rewards for homework and programme completions, meals, and the provision of childcare and transportation when needed.

- Booster sessions lasting around three hours every six months, with a family outing afterwards.

Further details on the activities of the programme and on the elements needed to successfully implement it can be found on the SFP website ([10]).

6.1 Findings and outcomes from trials

In systematic reviews (Foxcroft et al., 2002; Petrie et al., 2007), both versions of the SFP (Utah and Iowa) are considered effective — including over the long term — in preventing substance use and other problem behaviours. The most recent Cochrane review cites the SFP as one of the few universal family-based prevention programmes that are effective for the prevention of problematic alcohol use in young people (Foxcroft and Tsertsvadze, 2011b). In addition, the SFP seems to be the only programme in randomised control trials to demonstrate significant improvements in the outcomes for the children, rather than only improved parenting skills and reductions in child maltreatment (Kumpfer and Johnson, 2007).

These effects appear to be related to the programme's emphasis on active parental involvement and on developing skills in social competence, self-regulation and parenting, which the SFP shares with other effective parenting programmes. Such family approaches are claimed to have an average effect two to nine times larger than child-only prevention approaches (Tobler and Kumpfer, 2000) and are claimed to be more effective than life skills programmes in schools (Miller and Hendrie, 2008). An overview and description of these programmes can be found in the UNODC (2009) handbook on parenting programmes. Among these, however, the SFP is one of the few to have been replicated with positive results by independent researchers among different cultural groups and different ages of children (Kumpfer and Alvarado, 2003a; Spoth, Greenberg et al., 2008a; Spoth, Randall et al., 2008). A recent systematic review of selective prevention programmes for children from substance-affected families (Broening et al., 2012) identified the SFP as effective for this, its original target group. Nevertheless, the SFP has been subject to criticism concerning the creation of its evidence base (Gorman and Conde, 2007). While such evidence-based prevention programmes have positive effects in preventing problem behaviours, in the case of SFP, developers were interested in addressing the problem of implementing them on a large scale and into different cultural environments.

6.2 Implementation in Europe

See Map on p. 19.

The information in the remainder of section 6 is taken from studies and evaluations of the programme in the US and Europe, and from responses to the survey conducted for this publication of those who implemented the SFP in Europe. Recent pilot studies in France, Austria and Slovenia and a small pilot study with 35 families in Turin, Italy (Ortega et al., 2012) began too late for inclusion in this analysis.

Four of the European implementations — in Germany (Stolle et al., 2010), Greece, Sweden (Skärstrand et al., 2008) and the United Kingdom (Allen et al., 2007) — used and adapted the shorter SFP 10–14 Iowa version by Molgaard et al.(2000) and Spoth et al. (1999), with seven sessions per week and booster sessions. The remainder, in Ireland (Kumpfer et al., 2012a), Spain (Orte et al., 2008a, 2008b), the Netherlands (Bool, 2006) and Poland (Okulicz-Kozaryn and Foxcroft, 2012) used the 14-session Utah version by (Kumpfer and Alvarado, 2003), mostly with three facilitators for each of the training groups (for parents, children and families). All but one adaptation involved changes from the US version in the stories or charts used in the programme, but not to the structure. The only exception comes from Sweden, as discussed in section 6.3.

From an economic perspective, all European implementations target low-income families, like the original SFP version. The Polish, Swedish and United Kingdom implementations address universal target audiences, while the German, Irish, Greek, Spanish and Portuguese implementations are aimed at vulnerable families, often in economically disadvantaged neighbourhoods. Those in Spain and the Netherlands also target addicted parents, as intended by the original version of the programme. The pilot studies in France, Austria and Slovenia seem to have yielded promising outcomes for high-risk families with the 14-session SFP (Personal communication, K. Kumpfer).

The SFP programmes in Europe are carried out in mainly urban areas, unlike the rural-urban mix of the original. The Irish and Dutch implementation of the SFP involved rural sites and also targeted children who

([10]) http://www.strengtheningfamiliesprogram.org

already had diagnosed behavioural and emotional problems. This has implications for the family structure, and the Polish and United Kingdom versions involved more single-parent or stepfamilies than the original version. In Greece, most families took good care of their children's physical health (which in Greece constitutes a central aspect of the parental role), but were poorly informed about issues related to psychological well-being, how to cope with school and learning difficulties, and, in many cases, fathers did not attend the programme's sessions.

Many of the Spanish programmes take place in coastal areas or tourist resorts, which might influence the lifestyle, employment and nightlife behaviour of families. The Spanish experiences include consideration of a different level of development of the social protection system from the US and that family networks of care and solidarity remain relevant, partially due to the symbolical importance of the family as an institution. Similarly, the typical Greek family is likely to have closer bonds than the average US family and Greek children are usually dependent on their parents (emotionally and financially) for longer than those in the US. In Spain and Greece, Mediterranean-style patterns of social organisation prevail and therefore public squares and street life are important to strengthen and maintain neighbourhood links, unlike the suburban lifestyle in the US.

As detailed in Table 2, the number of families included in European implementations of the SFP ranges from 22 in Netherlands to approximately 10 000 in the United Kingdom (since 2006).

Table 2. Characteristics of the European implementations of the SFP

	Germany	Greece	Spain	Ireland	Netherlands	Portugal	Poland	Sweden	United Kingdom
Version	Iowa	Iowa	Utah	Utah	Utah	Utah	Utah	Iowa	Iowa
No of sessions	7	7+4	14	14	14	14	14	11+1	7
Type of intervention	Selective	Selective	Selective	Selective/ Indicated	Selective	Selective	Selective/ Universal	Universal	Universal/ Selective
Coverage (families)	150	56	243	250	22	40	500	707	10 000
Training for professional (days)	3	4	3	2	2	2	3	3	3

The SFP is implemented predominantly by psychologists in Greece, by teachers in Sweden and the United Kingdom, and by social education workers in Germany. In the remaining countries, a combination of academic professionals from social, health and addiction services is used. They received two to four days of training, sometimes from the programme's developers themselves. In Ireland, Spain and the United Kingdom, a local or regional certified training and supervision system was developed, which appears to have assured an even higher level of fidelity and quality assurance than the original. The Irish implementation model is unique, with a coalition of juvenile probation services, local drugs task forces, schools, family services and the Garda (police), all contributing staff and recruiting families to the programme (Kumpfer et al., 2012).

6.3 Adaptations made

The most important environmental difference between Europe and the US is that in Europe, the legal drinking age is 18 years or lower, whereas the original version of the SFP is based on the legal drinking age in the US, which is 21. In addition, the US references to youth drink-driving are not relevant to many countries in Europe, where under-18s cannot get a driving license or can only drive with parental supervision between the ages of 16 and 18. Regarding tobacco smoking, in Greece for example, it is culturally considered (almost) acceptable and for the typical Greek parent, smoking is not the same category as alcohol and drug use: reference to all three together seemed awkward there. Further, it is unlikely that a significant number of Greek 10- to 14-year-olds drink alcohol regularly, as the US programme assumes of its young people in this age group. Greek teenagers are, however, allowed by the state to enter clubs and bars without the strict ID control enforced by US law and are allowed to buy alcohol at supermarkets. The Greek materials had to include grandparents, as many parents work and their children are often looked after by their grandparents. It would therefore not be very useful if, for example, the parents establish house rules that the grandparent refused to monitor.

The Greek implementation had to accept that many fathers did not attend the sessions and that meals could not be supplied due to lack of funding: only snacks and chocolates or sponsored tickets for sports events were given as rewards at the end of sessions. Lack of funding also meant that in Greece and Poland, childcare so that parents could attend sessions could not be offered. In Spain, religious beliefs and practices are less relevant than in the US, but according to the evaluation reports, the dedication to the SFP of Spanish parents is higher than that of US parents, with many more Spanish fathers participating in the programme. Because of such cultural differences, almost all the implementers in Europe had to modify the materials with the input of focus groups, the participants, and/or an external advisory group. For the United Kingdom adaptation for example, the researchers (Allen et al., 2007) asked a group of prevention workers, parents and young people with prior experience of the original US version to review and comment on the materials. With their proposals for adaptations, the materials were revised and then discussed in focus groups in representative areas. Adaptations in Germany (Stolle et al., 2010), Ireland (Kumpfer et al., 2012) and Spain (Orte et al., 2008a, b) proceeded using similar methods.

Since some sites (in Germany, Spain and the United Kingdom) had more ethnically diverse target groups than the original, at least one of the featured families in the DVDs used there was from a minority ethnic population, while in Greece, the minority ethnic families from the original were substituted with Filipinos to represent immigrants. The German, Greek, Spanish, Swedish and United Kingdom programmes reshot the DVDs to feature people from the same cultural and language backgrounds as the target groups, using a much simpler language than the original versions, because many parents could not follow subtitled DVDs or the language level. Several scenes (e.g. shoplifting and cannabis use) had much milder parental reaction in the original US DVDs than is perceived as natural by Greek parents, which made the US DVD families 'too good to be true' in the Greek participants' eyes. Greek parents perceive their adolescents as far more defiant than those presented in the US material and wanted to learn how to handle more conflictive situations.

All references to non-relevant cultural contexts were replaced with their nearest culturally appropriate equivalent. As nobody in Europe can have a driving licence before the age of 18, the US mother's fear that her teenage son might drive drunk was replaced in Greece by the fear that the boy might get in a drunken older friend's car, or enter a stranger's car because alcohol is impeding his judgement. The Germans used a less moralising approach than the US when they reshot the videos, not condemning rule-breaking as much and depicting urban settings, housing styles and clothing to reflect contemporary German society (neither too neat nor too neglected). In Ireland, Spain, Sweden and the United Kingdom, the language had to be modified in terms of names, and the terminology was simplified ([11]) and softened concerning disciplinary matters. Certain activities, games and incentives for the children had to be changed in some cases, to avoid the need for reading and writing. The concept of punishment was not well-accepted in Spain and Poland, and the term 'creed' ([12]) at the end of the sessions had to be renamed 'motto' in the United Kingdom, while it was accepted elsewhere. Only Italian parents (Ortega et al., 2012) found it 'too religious' to read out a creed to the others at the end of the sessions.

The SFP implementers in Germany, Ireland, Greece, Portugal and Sweden found that the programme was received well both by affluent and less privileged families, and that families from differing social levels better achieve parenting competences by learning from each other and about different social realities.

Recruiting the families — and especially adolescents — was often perceived as quite difficult. The US versions of SFP 10–14 targeted families whose children were eligible for food stamps at high school, in order to reach those with low socioeconomic status. The German version recruited families from urban neighbourhoods that are defined as economically deprived (i.e. having a significant higher percentage of adults with a jobseeker's allowance compared with the rest of the area). The Greek recruitment (through public schools only) led to a selection bias, as lower-income families who could not pay for professional help were more willing to participate. Therefore, one third of the participants in

([11]) In the UK, the Easyread format was used, which gives the essential information on a topic without a lot of background information and can be especially helpful for people who are not fluent in English (http://odi.dwp.gov.uk/inclusive-communications/alternative-formats/easy-read-and-makaton.php).

([12]) For example, the creed for parents is 'We are strong and caring parents who show love and set limits. We are helping our kids become responsible young adults' and for 10- to 14-year-olds is 'We are strong young people with a great future. We are making good decisions, so we reach our goals' (http://www.extension.iastate.edu/sfp/files/SF2PYF1ALL.pdf).

Greece were from minority ethnic populations and more than half of the children had learning difficulties such as dyslexia and ADHD.

In Spain and Poland, a top-down approach to utilise representatives from local government or from respected agencies made it easier to recruit families, whereas in Ireland and Wales (in the United Kingdom), a bottom-up agency and associations-led approach worked better. These cross-agency/cross-departmental collaborations were crucial for the Irish programme to address delinquency and crime, educational disadvantage, poverty, homelessness and substance use in the participating families. The inter-agency collaboration model dispersed the burden of resource allocation and harnessed the expertise of a number of practitioners and agencies including community drug services and drug and alcohol treatment agencies, criminal justice agencies, and healthcare, education, homeless and social services. Many families with limited resources or disruptive children in Spain and Poland needed the additional support provided by psychological and social services.

It seems that low-threshold incentives (such as transportation, food, childcare and communal meals) significantly increase attendance. The unforeseen benefit of implementing the SFP in Ireland was that it strengthened relations between statutory, community and voluntary service providers and allowed the programme to offer activities such as youth work, homework clubs, and arts and crafts workshops. Maybe due to this, the Irish SFP implementation had even more significant results than the original SFP versions (Kumpfer et al., 2012).

Protocol changes

Most of the survey respondents found that, for Europeans, the SFP is a relatively complex programme, which requires considerable resources and organisational effort (to organise qualified and experienced staff to work in the evenings, for instance). In order to implement the programme with fidelity, substantial funding is needed, which is difficult to raise in the healthcare sector across all European countries. However, a shortage of funding and infrastructures led to protocol changes only in Germany (a reduced time span between the booster sessions), Greece (shortened activities, extra individual counselling, and children who were younger than the original target group attending sessions because there was no childcare provision), and particularly in Sweden. The Swedish version has 12 sessions: the four original booster sessions were integrated with the seven regular sessions, together with one additional session. In addition, whereas in the original programme, children and parents attend separate sessions for the first hour followed by a joint family session the second hour, this was not feasible in Sweden for practical and financial reasons. Therefore, the children had their sessions during the daytime in their regular school classroom, taught by their teacher, while the parents' sessions were held in the evening. More importantly, instead of having one family session after each of the sessions for children and parents, the overall number of family sessions was significantly reduced to only two. The box below details the implications of these changes.

The Swedish implementation of the SFP

The Swedish implementation caused some debate (Andreasson, 2010) and — certainly at conferences — seems to be a popular example of a North American programme that does not work in Europe. The Swedish SFP managed to recruit many families to the programme, but no effects were found on substance use among the adolescents and on the risk and protective factors. This was despite using experienced teachers and leaders, trained by certified SFP 10–14 trainers.

The hypothesis that the programme adaptation failed to appeal to Swedish families' attitudes seems unlikely, given that it was effective in other European cultures that probably differ even more than Sweden from the original programme's environment. The alternative explanation is the drastic reduction in the number of joint family sessions. According to the programme developer Karol Kumpfer (personal communication), the major 'magic' of the SFP is having the whole family involved for a meal and practice sessions after the parallel sessions. Therefore, not running those family groups — an essential core component — is a major violation of fidelity to the SFP model and several commentators consider that the Swedish evaluation has tested something that is far from the SFP (Foxcroft and Kimber, personal communication). The survey respondent on the evaluation of the Spanish SFP, for instance, reported that the combined effect of the three components of the application (work with children, with parents and with families) is crucial for positive outcomes.

6.4 Lessons learned

In terms of social organisation, the involvement in the SFP of parents' associations, sports clubs, day care centres and the criminal justice system is essential. Above all, the involvement of all agencies working in the field (youth, health, social work, police, etc.) boosts

the impact, although this might be limited to countries with high social capital: it has been less reported from Greece and Portugal than from the other European implementations.

A first impression is that the materials and the organisational efforts required are intimidating for the agencies that apply such a programme, and a lot of preparation and creativity for the adaptations and pilot tests is needed (reported from Germany, Greece and Poland). The investment in people and in their training and involvement is as essential as the work to adapt the materials (reported from the Netherlands and Portugal). The SFP utilises a large pool of materials and posters, which need to be processed quickly in the sessions. In practice, this might prove impossible in cases where participants' educational levels are relatively low. Sometimes, aesthetic quality might need to be sacrificed to maximise comprehension: colours, typeface and complexity of language need to be addressed accordingly, and more pictures used to help get the messages across.

The adaptation of the SFP to the cultural values, priorities and characteristics of the target population and its context is seen as essential by the European implementers. It seems to be part of the philosophy of the programme that major efforts at cultural adaptation must be planned for in the implementation design. Its developer defends the principle of cultural humility (a willingness to accurately assess one's limitations, the ability to acknowledge gaps in one's knowledge, and an openness to new ideas, information and advice (Rivera et al., 2010)) and that implementers from the local culture must adapt programmes to local conditions in order to maintain their effectiveness (Kumpfer et al., 2008a; UNODC, 2009). Above all, this refers to the programme's graphical elements, stories, songs, and the removal of culturally inappropriate materials. At most locations therefore, the cultural adaptations were pivotal, while changes in the structure (sessions, homework, and programme length) were not necessary.

Mixing families with high and low vulnerability together created a positive group dynamic because many learned from each other about the different realities of parenting conditions. When younger and older children were put together in the same session, however, it was reported from Ireland, Greece and Poland to be more difficult to accomplish the session targets.

For most survey respondents, it was essential for success to have run pilot SFP groups in which the main difficulties of implementation were identified and local needs assessed; to have tested the programme elements with the target group; and to continuously and gradually improve the intervention with process feedback from the implementers, the families and the SFP developer.

The Greek implementers realised that they needed a uniform policy about how to handle very personal or sensitive issues that might be disclosed by participants 'opening-up' during the sessions. For example, during a family session in which all the parents were certain their children were too young to know the meaning of 'drugs' and some advised the facilitators to refrain from talking about drugs because 'the kids are innocent', a 10-year-old disclosed to the group that he had been offered hashish twice by an older student at school. The boy was unaware of the significance and implications of what he was saying. A uniform policy was also needed for the families once they have completed the SFP. As there are almost no community psychology services in Greece, the implementers offer each family a counselling session in private, where the facilitator offers basic guidance. The SFP in Greece therefore had a similar role to that of an emergency team: basic assistance in crisis situations.

Many survey respondents reported that they learned that implementing North American programmes in another context was not as difficult as they had envisaged, because the issues that families are concerned about are similar worldwide: for example, parents worry that their children are drinking alcohol, using drugs, are in a gang, being violent, etc. They therefore suggested avoiding cultural assumptions about the content of the programme, and that premature assumptions that a given element will not work because it 'is the sort of thing that only Americans do' should not be made. For instance, in the first implementation of SFP 6–11 in Sweden, the local implementer said Swedes would never participate in role play, but after giving it a try — as the programme developer suggested — the Swedish families in fact enjoyed the role play sessions. The Greek programme's advisors had said that reading out the creed at the end of the session would be 'too American' and awkward, but in practice, it increased the group identity and the parents appreciated hearing it from their children and members of other families.

6.5 Evaluation experiences

All European implementations were both process and outcome evaluated. Most implementation sites

applying the 14-session version used a common pan-European evaluation design, which is similar to the one used in the US and employs the same instruments.

The survey respondents report that in most cases, the sample sizes for the evaluation were much smaller than those in the US, were sometimes unrepresentative, and randomisation of the families to SFP or to controls was often not possible. Outcomes are currently available from the implementations in Ireland, Spain, the Netherlands, Portugal, Sweden and the United Kingdom. The Portuguese and United Kingdom results are similar to the original US findings, the effects reported by the Dutch are slightly smaller, whereas the Irish (Kumpfer et al., 2012) and Spanish results are better than those reported by the SFP sites in the US. In Sweden, no effect on adolescent alcohol, tobacco and drug use was found for a strongly revised SFP 10–14. However, an earlier Swedish pilot study with the 14-session SFP 6–11 by Kimber and associates did report promising results, although a full programme was not implemented because the authorities found it too demanding in terms of the number of personnel needed (Kimber, personal communication).

The main problems during the evaluation were the difficulties in randomising families and the attrition rates during up to four waves of evaluation questionnaires. In order to address this challenge, evaluators recommend allowing for time to explain and to develop strong links with the participating families and institutions, such as obtaining written agreements from the school principals to conduct the survey several times.

Some researchers added or adapted the evaluation tools in consultation with the SFP developers. The Greek survey respondent underlined that qualitative tools such as interviews should be incorporated into evaluations, because quantitative measurement alone tends to underestimate the effectiveness of the intervention in the participants' lives.

Some survey respondents reflected upon the factors that could explain the different evaluation outcomes. Researchers from the Irish, Spanish and Portuguese sites noted that effects are almost always larger if the families are more at risk, as they have more room for improvement: the participants in these countries were indicated young people referred to the SFP by other services. This allowed their families — already stressed by adolescent problematic behaviour — greater room for improvement and strongly motivated them to participate in the skills training offered by the SFP. When asked how their family was functioning after completing the SFP, improvements were therefore more easily identified. Conversely, the Swedish researchers attribute the absence of any difference between the intervention and the control group to a 'ceiling effect', where it is difficult to show the effects of this type of programme in less vulnerable environments because, unlike the US, Sweden has a well-developed social welfare system, with only small disparities in social class and other socio-demographic indicators.

6.6 Transferability of the SFP from North America to Europe: summary

Almost unanimously, European implementers consider that the SFP can feasibly be successfully adopted in Europe with populations that are socially and culturally different from those in the US. These differences do not compromise effectiveness, provided there are the means for careful adaptation of the programme and an adequate workforce. If key structures of the programme curriculum are kept (such as the family sessions of parents and children together), most of the material can quite easily be adapted to the target group. The involvement of local consultants from the target population is essential for this. However, the length of the SFP, its costs and the poor recruitment of families have hindered large-scale implementation in the Netherlands, where some experts also questioned the programme's theoretical foundation.

Despite the considerable efforts and logistics needed to implement the SFP, most European sites uphold positive views on the advantages of using such an allochthonous programme for family-based prevention because of the following:

- Quality: the SFP allows implementers to draw on the scientific advances of a different country against a background of a large body of scientific work already carried out on its effectiveness. The use of an evidence-based programme with proven results, which was tested in multiple randomised control trials and field trials with different populations and with different researchers, facilitated the process of grant applications to fund the implementation of the SFP (reported from Germany and Portugal).
- Innovation: most programmes produced in the same culture draw on a similar pool of resources and they share the same mentality, the same 'air' and the same dead-ends. An allochthonous programme can bring a very refreshing innovation with a different perspective to these dead-ends. This external perspective offers new ideas, aspects and proposals

that an insider or local expert may not have considered (reported from Greece and Spain).

- No duplicated efforts: use of an allochthonous programme removes the need for local service providers to investigate, develop and research culturally specific programmes, as it can be adapted to meet local needs and cultural norms (reported from Ireland and Poland).

The SFP might be easier to disseminate across different societies than other North American programmes, since in most (western) cultures, families are concerned about similar aspects of adolescent behaviour. In many cases, the components of the SFP were implemented better than expected and common culture-based assumptions — such as European families would not respond well to some of the 'American' programme elements — appeared to be fallacies.

7 | Communities That Care (CTC)

Communities That Care is not a prevention programme per se, but rather a prevention system that provides strategic consultation, training and research-based tools for communities (agencies and community members) to work together in order to promote the positive development of children and young people and to prevent adolescent problem behaviours (including alcohol and drug use, delinquency, teenage pregnancy, dropping out of school and violence). Each community uses its own data-based community profile; develops a focused, long-range community action plan for building on existing resources and filling any gaps with new resources; and chooses tested, effective programmes, policies and practices that fit its profile, to fill identified gaps. One of the hallmarks of the CTC system is that it is grounded in rigorous research from a variety of disciplines. It involves all community stakeholders in identifying standards for behaviour that can help young people avoid problem behaviours and become healthy, engaged citizens. Those involved are encouraged to communicate healthy beliefs and clear standards in all areas of a young person's life at home, at school and in the community.

The research underlying CTC shows that a child living in a high-risk environment can be protected from problem behaviours by a strong, affectionate relationship with an adult who cares about and is committed to his or her healthy development. This can be any caring adult — a parent, a teacher, an extended family member, a coach, an employer, or an adult from the child's faith community. The most important element of this relationship is that the young person has a long-term investment in it and believes the relationship is worth protecting, and is therefore motivated to follow the healthy beliefs and clear standards held by the adult. The social development strategy of CTC promotes bonding by providing opportunities, skills and recognition in 'socialisation units'. The programme aims to achieve these by improving the environment and the interaction of people and agencies in communities.

Therefore, rather than developing individual caring adult-child relationships, CTC offers a set of evidence-based interventions that in turn create protective, nurturing environments.

The CTC Prevention Strategies Guide ([13]) is a tool to identify tested, effective programmes that meet a community's unique prevention needs. Every programme in the guide addresses one or more risk or protective factors, and has been found by high-quality evaluations to effectively reduce substance use, delinquency, teen pregnancy, school drop-out and/or violence. The guide includes programmes (including the GBG and the SFP) and strategies implemented from before birth through adolescence, in all areas of young people's lives.

CTC comprises five phases:

Phase 1 (Getting started): local community/opinion leaders assess the readiness of their communities to ensure that they are ready to start the CTC process.

Phase 2 (Organising, introducing, involving) builds a coalition board of individuals and organisations and they receive training on the public health model, prevention science, and the advantages of using a data-driven decision-making process to guide prevention activities.

In phase 3 (Developing a community profile), specific data are collected by the coalition board in each CTC community about risk and protective factors, measured by a representative youth survey that includes items from longitudinal research studies. The coalition then prioritises which risk and protective factors should be addressed and the desired outcomes from interventions.

For the community-specific risk- and protective-factor profile the coalitions devise in phase 3, in phase 4 (Creating a community action plan), they select tested, effective programmes, policies and practices

([13]) http://www.sdrg.org/ctcresource/Prevention%20Strategies%20Guide/introduction.pdf

for achieving the prioritised outcomes. This phase also includes creating action plans for putting new tested, effective programmes, policies and practices in place and developing an evaluation plan for collecting and analysing data to measure progress towards the desired outcomes.

In phase 5 (Implementing and evaluating the community action plan), task forces delegated by the coalitions put each programme, policy or practice in place, identify and train implementers, and evaluate their effectiveness in the community, by, for instance, repeating the youth survey.

7.1 Findings from studies

CTC has been implemented in Australia, Canada and the US, and has been largely researched in trials in the US since 1992 (Catalano et al., 1996). Communities that use CTC in the US made more progress than matched control communities in implementing research-based prevention activities, in cross-sector collaboration generally, and in collaboration with each other in joint prevention initiatives (Brown et al., 2007a; Fagan et al., 2011a; Hawkins et al., 2008). Fagan et al. (2011) found that communities enrolled in CTC in the US also implemented more evidence-based programmes than control communities. As for behavioural outcomes, growth in delinquency, drinking and tobacco smoking initiation was lower in adolescents in CTC communities. Past month drinking ard binge drinking was significantly lower during the final year of the study (Hawkins et al., 2009).

A recent study (Kuklinski et al., 2012) followed 4 400 pupils aged 10–14 (in CTC and in matched control communities) for four years and analysed their tobacco use, delinquency, and other behaviours. It found a conservatively estimated benefit-cost ratio of $5.30 for every $1.00 invested, provided that CTC is implemented with high adherence to its protocol (fidelity). A study testing the universality of CTC in the same cohort (Oesterle et al., 2010) found that it reduced pupils' substance use and delinquency equally across risk-related subgroups and genders. The effect on reducing substance use was stronger for boys than girls only at age 14, as was the reduction of the incidence of delinquency for those who were not delinquent at baseline.

Another longitudinal study, from 2003–07, compared 62 communities with CTC coalitions in Pennsylvania (Feinberg et al., 2010) and found — compared to non-CTC communities — less growth in delinquency among young people, but not in substance use. Among the young people exposed to evidence-based, universal prevention programmes through CTC, levels of risk factors increased more slowly, and protective factors and academic performance decreased more slowly than in the comparison cohorts.

In the United Kingdom, implementations of CTC in three different cities in England in 2004 (Crow et al., 2004) found mixed, but overall very limited, changes in community cohesion and cooperation, depending on the structural and social pre-existing resources of the sites. People in some coalitions were reluctant, uncomfortable and not used to cooperating, especially those in the more disadvantaged areas with fewer infrastructures. A Scottish feasibility study (Bannister and Dillane, 2005), also in three sites, noted a lack of consistent attendance at meetings, with a relatively low number of local residents, especially young people, while the prevention philosophy of CTC itself was strongly supported by local professionals and service providers. However, the stakeholders had difficulties in including the interventions offered by CTC into their existing services.

Jonkman et al. (2009) compared the Dutch implementation with that in the US and found fewer implementations of CTC in the Netherlands, especially for the last, more research driven, phases. However, recruitment, retention, and activation of key leaders was challenging in both countries. In the Netherlands, community members resisted effective new programmes and wanted to use familiar ones, even if they were not evidence-based. The involvement of schools in the surveys and the resource assessment of the community were also more difficult in the Netherlands than in the US, and the CTC coalitions clearly worked better in the US, with more readiness, support and participation: school pupils, business leaders, and volunteers were lacking among the Dutch coalition board members.

The most recent Cochrane review of universal multi-component programmes for the prevention of problematic alcohol use lists CTC among the 12 interventions that indicated statistically significant reductions in alcohol use by adolescents, e.g. weekly drinking, frequency of drinking, binge drinking, use in the last 30 days, lifetime use, heavy use, quantity and days of use (Foxcroft and Tsertsvadze, 2011c).

7.2 Implementation in Europe

See Map on p. 19.

In Europe in 2004, there were CTC feasibility trials in the United Kingdom, in England (Crow et al., 2004)

and Scotland (Bannister and Dillane, 2005). There are currently implementations in Germany, the Netherlands and Croatia and the information in the remainder of section 7 is taken from responses to the survey conducted for this publication of those who implemented CTC in these three countries.

Certified CTC trainers from the Netherlands Youth Institut (NYI) conduct the training for most of the CTC implementers in Europe, although the German site now has its own pool of certified trainers.

CTC runs as a pilot project in Germany in two city districts and four rural towns in Lower Saxony, involves 12 local communities in Croatia (in cities of various sizes) and, over the last 10 years, 20 cities in the Netherlands. Due to the CTC focus on communities, the number of participants cannot be estimated.

The main social difference between Europe and the US, reported by all CTC implementers, is that the concept of 'community' is different in different contexts. For instance, in the Netherlands and Germany, many of the CTC coalition participants are professional and paid, while more are volunteers in the US and Croatia. The level of tolerance to underage drinking or early sexual activity, attitudes to smoking, drug use and dropping out of school are also different. It seems that in Europe, the CTC sites are less rural and more heterogeneous than in the US, and disadvantaged neighbourhoods are not as poor and their residents not as socially excluded. In Croatia especially, the communities enrolled in CTC are mostly from well-developed and economically safe tourist areas. In the more densely populated European countries, communities are less self-contained and the inhabitants more mobile, so community norms and restrictions on the availability of alcohol and tobacco may therefore have less impact. A final difference is that school systems in the European sites are not community-organised as they are in the US.

7.3 Adaptations made

The main problems encountered by CTC implementers in Europe was that there is only a limited number of evidence-based prevention programmes and that Europeans are less familiar than North Americans with the concept of prevention programmes and their implementation: people want to work with individual youngsters. Intensive talks with diverse community stakeholders were necessary to overcome this problem, and the Croatian implementers produced books (Basic and Grozic-Zivolic, 2010; Basic et al., 2007a, 2007b) and journal supplements (Basic, 2008) about CTC, implementation quality, and evaluation and prevention science in general, in order to improve the knowledge base.

Content-wise, with adaptation, almost everything in CTC could be used in Europe. For instance, 'stole a bicycle' replaced 'stole a car' in the youth survey questionnaire (again, because the legal driving age is younger in the US than in Europe) and the questions about 'youth gangs' were omitted in Germany. The US training materials for voluntary staff were adapted for professional, trained social workers in Europe.

The essential elements of CTC are its protocol and five phases of implementation but the European sites had to adapt them. In the Netherlands, three-day training sessions were not feasible because participants had to be absent from their paid work for too long, and the training sessions for coalition members had to become a process of giving information step-by-step. In Croatia, a pre-phase 1 had to be implemented: before assessing their readiness to participate, the Croatian communities had to understand the whole CTC system. Key persons in local communities were persuaded to participate in community coalitions and to suggest suitable experts to be trained and work on the project, but although the coalitions consisted of people from different institutions, they were not always truly representative of them. Nevertheless, CTC proved to be useful in Croatia because it made decision-makers think about strategies to prevent problem behaviour.

The community profiles in Croatia were first established using the original CTC youth survey, while several different pilot instruments were tested for questioning young people, preschool teachers, primary and secondary school teachers, parents and other citizens. Later, the youth survey was adapted with a risk and protective factor profile for the selection of prevention programmes that fitted the community profile.

Perhaps the biggest problem in Germany and Croatia was the part of phase 4 that creates a community action plan, where community coalitions select evidence-based prevention programmes, policies and practices that fit the communities' risk profiles. As there were no such evidence-based programmes in Croatia, the implementers worked with the authors of other prevention programmes in the country to further develop them, implement them better and evaluate the outcomes, which was time-consuming and difficult. This exercise, however, has improved the prevention panorama in the communities that participated in CTC, which now have better implemented and evaluated

programmes. One allochthonous programme — PATHS (Promoting Alternative Thinking Strategies), concerning social and emotional competence in children at the beginning of primary school education, by Mark Greenberg at Penn State University, was culturally adapted and implemented for the first time in Croatia, and has been running there for over six years.

The basic problem of implementing CTC in Croatia is the lack of resources, so that using, choosing and evaluating appropriate evidence-based programmes could not proceed as set out by the CTC system. Still, the demands of CTC brought the communities closer to the real and more thorough implementation of prevention programmes and led to better public awareness, levels of readiness and key people's understanding. Local experts believe that these aspects significantly increased the reduction of risk factors and enhanced protective factors.

7.4 Lessons learned

The European users of CTC learned that it is important to consult with different stakeholders over longer time periods than envisaged by the original CTC, to find out what they think of CTC and what they would change about it. This proved to be very useful to assess which components could be directly implemented and which had to undergo major adjustments. However, the core elements of the original programme need to be defined and kept in order to guarantee that the proven and evidence-based concept of CTC remains, and when programme components are adjusted, functional equivalents have to replace them.

For a successful adaptation, the implementers recommend working with certified trainers to ensure programme fidelity; to pilot test the youth survey and to ensure school support for it; and to accurately identify local 'champions' and existing local prevention efforts to synergise with other local initiatives. The two most important factors seem to be the community profiles showing the risk and protective factors and the risk behaviours that require more attention, and the existence of evidence-based programmes that ensure the positive results of CTC. This made CTC the main catalyst for the development of national databanks of evidence-based programmes in Germany and the Netherlands.

7.5 Evaluation experiences

The German version of CTC — a pilot project — is limited to a process evaluation that analyses the specific local conditions for implementation, looking for distinct barriers and local solutions. Both the Croatian and Dutch evaluations are still adapting the whole CTC system to local conditions and have not yet produced behavioural outcome evaluation results.

The Dutch evaluation had difficulties in finding enough communities to research the effects at community level, but managed to include five interventions and five control communities. The German site had initial problems in getting the school system's support for conducting the youth survey, and in Croatia's prevention culture, evaluation usually assesses programme users' satisfaction rather than outcomes. All these problems seem to be due to the high complexity of conducting interventions at community level, because evaluation parameters and instruments have to be agreed upon by many stakeholders, and because the differential impact of each implemented programme has to be assessed.

7.6 Transferability of CTC from North America to Europe: summary

The European implementers of CTC believe it is feasible for it to be implemented in their countries in different contexts. For them, the main advantage is in having proven and effective programmes and that it is much less effort to adapt them and to solve implementation barriers than to 'reinvent the wheel'. The strategic way of working in a community is perceived as an advantage of CTC: because practitioners, scientists and politicians have to cooperate, this leads to new ways of learning, sharing experiences and testing possibilities and outcomes. Other key considerations are:

- The strength of CTC lies in its empowerment of communities and its flexibility to tailor prevention packages to specific communities' needs, because it is not a programme per se, but a system. The core items of CTC that should be kept across all adaptations seem to be stakeholder mobilisation, the use of local data, the application of tested and effective programmes, and the revision of the community action plan according to the evaluation findings (Jonkman et al., 2009).
- For these reasons, CTC depends heavily on the organisation, values and structural conditions of communities and members' ability to agree on the needs assessment procedure. The earlier feasibility study in the United Kingdom (Crow et al., 2004) found that CTC worked well in one community that

had good cohesion, infrastructure and experience of partnerships, but in two others, the tensions between professionals and local people and the stakeholders' lack of commitment meant that CTC failed. The importance of these structural conditions has also been reported from some US trials of CTC: in Pennsylvania (Brown et al., 2010), higher levels of funding, leadership strength, coalition board efficiency, and strong internal and external relationships significantly predicted better support for the implementation of high-quality evidence-based programmes.

8 | Adaptation versus fidelity: what are the limits?

The previous sections have shown that all four manualised programmes from North America (Preventure, The Good Behaviour Game, The Strengthening Families Programme and Communities That Care) were adapted to European environments, either in content (wording, names, examples and images) or in structure (organisation, training, staff, time and length of sessions). It seems that transferred programmes must adapt to two interacting main constituents of environment: 'culture' in the sense of values, beliefs, language use, traditions and informal norms, and 'context', comprising the school system, administrative organisation, professional traditions and formal norms (legislation). This distinction is in line with how healthcare researchers classify factors that influence the implementation of best evidence in clinical settings (Grol and Wensing, 2004): those relating to individual professionals (that are less relevant for prevention), those relating to social context (such as role models, values, culture and expectations of the target group) and those relating to organisational context.

Drawing from the experiences of the survey respondents who adapted the four prevention programmes discussed here, it seems that the adaptations to culture affected the content of the programme materials, while adaptations to context required a modification of the protocols. The question therefore arises of how much adaptation and flexibility is acceptable without compromising the effectiveness of the original intervention.

The more robust the working principle of an intervention is, the more likely it will work under real-life conditions, that is with a lower fidelity of implementation (when not all components of the intervention are used, or not used in all locations), with fewer resources in schools or communities, and with less-skilled professionals implementing the intervention. A robust programme principle would even continue to be effective with incomplete implementation, as in most real-life conditions. To exemplify this: treatment of bacterial infections with antibiotic pills is quite robust to fluctuations in the protocol: the pills usually work, even if the weight and metabolism of patients differ considerably; if they are taken with or without food, at differing time intervals; if a patient forgets to take a pill; or if the treatment is stopped a day or two earlier. A certain amount of imperfection in the treatment protocol does not usually affect the outcome. Other interventions in the biomedical field (cancer treatment, for instance) are more fragile and work only when implemented strictly according to protocol — i.e. with high fidelity.

Probably the most important concern about a prevention programme being used in a different context is, indeed, fidelity: what happens if it is applied differently, incompletely or with less well-trained people. Almost all the adaptations described in this publication identified the level of training and the (related) motivation of those delivering the interventions as cornerstones of fidelity. Unfortunately, the influence of the deliverers' motivation and charisma on programme outcomes is difficult to control, especially if they themselves have developed the intervention. Therefore, implementers often avoid the recruitment of highly motivated or experienced teachers for two reasons: if motivated and skilled teachers are assigned to the control condition, they might reduce the intervention effect because control groups are supposed to fail; and if they are assigned to deliver the intervention, their insight and motivation would be confounded with the programme effect (Hansen, 2011). The European implementations of the four programmes are therefore a good test of their robustness because — with the exception of Preventure in United Kingdom — they were not implemented by the North American developer and they all had to face rather hostile conditions: school and community contexts which they were not designed for, and, often, teachers' low motivation. Nevertheless, most of them seem to have worked. In a recent paper on realist randomised control trials, Bonell et al. (2012) argue that fidelity is important because it provides

information about key intervention processes and functions. For obtaining such information, multiple trials across contexts (such as those described here) would test how intervention effects vary with context and can thereby elucidate how intervention effects interact with context.

The adaptations of the four programmes can be seen as replication in its purest sense as a means for understanding the context in which prevention is delivered and as a tool for understanding core principles — i.e. how and why adaptations succeed and fail (Hansen, 2011). Such replications by independent researchers are useful for assessing the utility of higher-order principles that can be applied across interventions in diverse populations and settings. In addition, many interventions targeting similar problems share conceptually similar approaches (Valentine et al., 2011). For example, the core of the GBG is a simple behavioural procedure and has been proposed by Embry (Embry and Biglan, 2008; Embry, 2011) as a 'kernel'— a principle that works robustly in different adaptations, because:

> 'approximately 20 independent replications across different grade levels, different types of pupils, different settings show strong, consistent impact on impulsive, disruptive behaviours of children and teens as well as reductions in substance use or serious antisocial behaviours' (Embry, 2002, p. 273).

Many programmes might contain such effective core components. These evidence-based kernels are 'irreducible units of behaviour-change technology', and they can be put together into 'behavioural vaccines' (daily practices) with powerful longitudinal prevention results (Embry, 2004, p. 588). Such kernels, based on perceived needs, can easily be combined and actively incorporated in community practices, thereby creating nurturing communities that address interrelated problems such as substance use disorders, antisocial behaviour, depression, anxiety, risky sexual behaviour, and/or academic failure (Biglan and Hinds, 2009), as the CTC model intends. In schools, too, kernels can be linked into systemic changes in the school operating system (Dishion, 2011). If well-trained administrative leaders and teachers apply such core behaviour change processes, they can create effective school systems.

This means that a programme can be adapted to other conditions in manifold ways, provided that the effective core components or the higher-order principles that make it work are not modified. It means also that a programme in which the underlying theory model has a high universal validity (Fernandez-Hermida et al., 2012) is more likely to maintain its effectiveness even when it needs to be strongly adapted to other contexts. For example, an important shared feature of all the four programmes described here is that they use findings from etiological research in the intervention model — i.e. early propensity to antisocial behaviour or lack of impulse control is strongly related to substance use problems later in life (EMCDDA, 2009b; Tarter et al., 2011). Studies that began in the 1970s (Shaffer and Greenhill, 1979) showed that learning problems predict psychiatric distress and that early aggressive behaviour predicts later antisocial behaviour, delinquency and potential heavy substance use (EMCDDA, 2009b; Kellam et al., 2008; Petras et al., 2008). An indicated programme such as Preventure tackles this by helping participants to increase their internal control; the GBG and CTC function by increasing external control (by the classroom group or community); and the SFP works on both pathways. It is rather surprising that apart from these and a few others, there are so few prevention programmes in Europe that intervene in the relationship between early behavioural maladjustment and later problem behaviour, including substance use.

Provided there is an effective programme principle, the presumed antithesis between the freedom of adaptation and the necessity of fidelity does not apparently matter so much. Rather, it seems that a well thought-out adaptation of the programme manuals assures that the working principles (the kernels) of a programme are truly and fully transmitted to culturally diverse target groups in different contexts. Therefore, most of the survey respondents agreed with the view that cultural adaptation is key to fidelity (Kumpfer et al., 2012). The fidelity of an implementation in the orthodox sense ('by the book') might be very high, but nevertheless yields less quality in the sense of less interaction and understanding, less motivated group leaders and a less involved target group. Adaptation is therefore essential:

> 'There is a fine line between being faithful to the original programme and coming up with materials that are too ideal for the country's reality, therefore perceived as fake. It is important that the participants feel the programme was written for them exclusively, not that we push them to feel that the programme is relevant to their own lives. In practice, things that seem awkward need to be replaced (even if two out of ten people would say they are OK) instead of trying to persuade participants that they are OK, just because the original programme includes them' (survey respondent, SFP Greece).

8.1 Adaptation to culture

Most of the European implementers found it feasible to adapt North American programmes to cultural differences, as they consulted stakeholders and involved local people, and organised focus groups and nominal groups with them. In their publications about these adaptations, Jonkman et al. (2009), Stolle et al. (2010) and Kumpfer et al. (2012) describe these strategies in detail. Many clues for successful cultural adaptation, at least for family programmes, were found in the cross-cultural adaptations of the SFP (Allen et al., 2007; Kumpfer et al., 2011, 2012a). Some of the survey participants criticised some adaptations that made only 'surface modifications' such as hiring racially matched staff and modifying graphics to show racially similar families, but ignoring cultural distinctions such as geographical location, educational background, socioeconomic status and language.

The experiences of the SFP (Allen et al., 2007; Kumpfer et al., 2008; UNODC, 2009) and of the other programmes discussed here confirm, however, that it is essential to:

- conduct a needs assessment using data and interviews with the target group and stakeholders;
- conduct a service gap analysis to determine whether an intervention is needed and whether the target community would endorse it;
- select the most effective intervention for the given context and problems;
- set up a cultural adaptation team to translate the materials into the local language(s);
- change graphics, stories, songs and names to reflect the target culture;
- remove obvious culturally inappropriate material (such as looking or not looking at a person when they are speaking);
- cater for culture-relevant language, colloquialisms and examples;
- identify culturally accepted norms of role behaviour;
- make culture-relevant definitions of undesirable behaviour;
- use culturally- and context-appropriate service providers;
- use implementers from the target culture, who will continue to make changes based on what works in cooperation with the programme developer;
- continuously conduct process and outcome evaluations of cultural adaptations;
- support the establishment of a local training and dissemination system;
- use implementers from the target culture who are 'true believers' and have the personal charisma to train other implementers;
- co-train with the implementers until they can run their own training sessions; and
- use pilot implementations for further revisions and adaptation to other educational systems or school cultures.

According to the UNODC (2009) guide to implementing family skills training programmes, the following modifications should be avoided in cultural adaptations of family-based prevention programmes:

- changing the theoretical approach on which the programme is based;
- using group leaders who are not trained or not qualified as recommended;
- reducing the number, type (parents, child, family) or length of sessions;
- changing the content (for example, changing key messages or skills, removing topics or omitting homework assignments) and sequence of sessions;
- using the programme for populations it was not designed for (in term of age or level of risk); and
- lowering the criteria for participant engagement.

Allen et al. (2007), Orte et al. (2008a, 2008b), Jonkman et al. (2009), Leflot et al. (2010), Stolle et al. (2010) and Kumpfer et al. (2012) provide valuable practical examples of necessary cultural changes in the programme materials for the GBG, the SFP and CTC. In order to adapt and transfer programmes into other contexts, additional capacities at a personal level might be needed. For instance, cultural humility is the capacity to identify experiences and information that are outside a person's own cultural references and the willingness and ability to identify and learn about otherness (Rivera, 2010): a programme implementer with cultural humility is able to identify contextual or relational barriers as well as their own communication limitations.

Additionally, it is important to take cultural diversity into consideration. Many of the European sites report that their target population is not homogenously different

from the original North American targets, but are culturally more diverse. A programme evaluation in Arizona (Hecht et al., 2003) found that a 'multicultural' version of the same school-based intervention (Keepin' it REAL ([14])) had equal or slightly better outcomes than culturally specific versions (Mexican American, African American and European American). This indicates that within culturally diverse settings, very culture-specific programmes are not necessarily an advantage. Similarly, adaptations might work when applied with some subcultural groups, but not with others (Castro et al., 2010).

8.2 Adaptation to context

It seemed more difficult to adjust the programmes to context conditions than to cultural conditions, especially in the case of CTC (Crow et al., 2004; Jonkman, 2009) and the SFP, that require more community involvement than Preventure and the GBG. A comment from a representative of the German implementation of CTC might also apply to countries in Europe that have as few self-governance traditions as Germany ([15]) (Schmitt, 1930; Winkler, 2000):

> 'There is no equivalent for "community" in the German language. Particularly in urban areas it is difficult to fully capture the meaning of *community*. *Gemeinde* in rural settings is a more appropriate term. Volunteering is not relevant at the same level as in the US. Youth care in Germany is in contrast much more regulated by law ("Kinder- und Jugendhilfegesetz"). A legal foundation is required for several parts of the CTC-approach'.

In France, the concept of community is reduced to setting:

> 'Prevention work in the community refers to everything that is done outside of the school or university environment. Community-based universal prevention is defined with reference to two areas: the workplace and the realm of leisure, culture and sports' (OFDT, 2010).

In addition, Europeans tend to have a state-oriented focus, in which citizens depend on the state to intervene and address social problems, while North America has a long history of community mobilisation and commitment to address these problems (Jonkman et al., 2009). The most telling statement on these structural differences was from a survey respondent who is involved in the SFP in Poland:

> 'Civil society is much less developed in Poland than in USA which makes the transfer of community-based programmes (or elements of community-based programmes) very difficult, impossible or useless'.

It seems that essential components of community prevention approaches from self-governance countries, such as defining community norms and rules, volunteering and citizen involvement, self-organisation and social control, cannot be taken for granted in countries with different political traditions. In Austria, for example, CTC was not implemented at all (although it is used as a reference model there), as it was not considered to fit into the structural and school reality of Austrian municipalities. The school psychology services had deemed the norm-setting approach of CTC 'to collide with the principle of "participative-emancipating empowerment" of young people and the CTC school questionnaire to over-emphasise and thereby normalise adolescent problem behaviour' (Personal communication, Austrian National Focal Point, 2011).

8.3 Social capital

The experiences above suggest that dissemination research in Europe needs to pay more attention to the importance of social capital, which was discussed briefly in section 3.3. This is especially the case for programmes that rely heavily on community involvement like CTC and the SFP. However, despite Francis Fukuyama's (2001, p. 7), simple definition as 'an instantiated informal norm that promotes cooperation between two or more individuals' and the despite the plethora of literature on this issue ([16]), social capital is not a perfectly defined concept and there is no consensus on how to measure it. For instance, the dominance of the communitarian approach to social capital has led to increased attention to normative and associational aspects, to the detriment of network approaches (Moore et al., 2006). Even so, social capital research (Kaljee and Chen, 2011) has identified several aspects that predict engagement in health risk and protective behaviours through individual, neighbourhood, community, and national level data. Social capital norms lead to cooperation in groups and therefore are related to traditional virtues such as

([14]) http://sirc.asu.edu/keeping-it-real/
([15]) Despite Germany being the cradle of Protestantism and now having a strong culture of municipal self-administration (subsidiarity).
([16]) http://www.socialcapitalresearch.com

honesty, the keeping of commitments, reliable performance of duties and reciprocity (Fukuyama, 2001).

A crucial question is how far these norms are universal — i.e. extended to those outside a family or a group. For instance, marginalised groups and families in Southern Italy tend to have strong bonding capital. There is trust and reciprocity inside the group, but members might take advantage of anybody external to it. In order to have *overall* positive social capital, linking and bridging capital is needed: the capacity to cooperate, with trust and commitment, with other groups and outsiders. As discussed in section 3, European societies differ substantially in these aspects of social capital due to history, religion and tradition, which impact on community organisation. One of the biggest determinants of political development in the history of European states (but also in China and in the Ottoman and Persian empires) was the degree to which political order managed to convert the natural trust and commitment within tribal or family-based groups (i.e. bonding capital) into real social capital (Fukuyama, 2011) that includes external bonds (to institutions, foreigners and other groups). Religious influences played into these developments:

> 'An example of a positive externality is Puritanism's injunction, described by Max Weber, to treat all people morally, and not just members of the sib or family. The potential for cooperation thus spreads beyond the immediate group of people sharing Puritan norms. Negative externalities abound as well. Many groups achieve internal cohesion at the expense of outsiders, who can be treated with suspicion, hostility or outright hatred' (Fukuyama, 2001, p. 8).

Such groups have a 'narrow radius of trust': their members do not easily cooperate with outsiders, resulting in so-called negative externalities. The result is that, in some societies, social capital resides largely in families and a rather narrow circle of friends. If members of such groups do not cooperate with each other and do not get involved in new activities, the adoption of preventive interventions would be difficult.

Social capital has therefore caught the interest of public health research as a psychosocial mechanism that might mediate the impact of income inequality on health (Hawe and Shiell, 2000). Many surveys use a few questions to assess social participation and trust as a proxy for social capital.

Giczi and Sik (2009) compared social capital aspects in contemporary European societies and found important differences in generalised trust — which was lowest in Bulgaria, Greece, Cyprus, Latvia and Portugal and highest in Ireland, Spain, the Netherlands and Scandinavia — and in sub-components such as helping others at least once a month, or the participation in non-governmental organisations. In the US, however, where many community-based programmes originate, Alexis de Tocqueville was astonished as long ago as 1835 at its citizens' propensity for civil association. Having wiped away most forms of social class or inherited status that bind people together in aristocratic societies, it was only by coming together in civil associations that individuals became strong enough to protect themselves, including from the state's power (Fukuyama, 2001). This exemplifies that trust and networks are important for social capital, but that political aspects are also important for practice, in order to explain complex social processes at the community level, particularly the interactions at the macro (context) and the micro (individual) levels (Hawe and Shiell, 2000). Certainly, social capital is a product of both social history (context) and traditional values (culture), all of them outside the immediate influence sphere of prevention programmes or policies.

To consider social capital is nevertheless important, for two reasons. First, it would be advisable for programme implementers to take social capital into consideration as a baseline characteristic of the context where an intervention is going to be implemented. Social capital can be a resource or a challenge. In areas with higher social capital, networks of trust make it easier for programmes to be implemented, and resources to be better used. Communities might then be more ready to embark on complex prevention projects that need the involvement of many different stakeholders. In societies with lower social capital, where community involvement is low, family-based prevention programmes might still be feasible. For example, the Portuguese implementation of the SFP had some problems in recruiting parents but was nevertheless feasible.

Second, Fukuyama (2001, p.18) argues that:

> 'the greatest direct ability to generate social capital is education. Educational institutions do not simply transmit human capital; they also pass on social capital in the form of social rules and norms.'

By the same line of reasoning, prevention programmes are an important mechanism for transmitting societal norms (Midford, 2010). If these programmes manage to increase the cooperation of community agencies

and families, social cohesion might grow as a consequence. Implementing CTC in Croatia, for instance, seems to have had this effect in the participating municipalities. Perceived neighbourhood cohesion in turn appears to have protective effects on youth alcohol, tobacco and illicit drug use (Lin et al., 2012). In a similar way, the work with the SFP in Ireland increased the involvement and cooperation of many community stakeholders. Other survey participants also remarked that implementing complex programmes increases the involvement of parents with each other and with their children's school, thus increasing bridging and linking social capital. Such programmes might therefore act as the impetus for socialising, and as catalysts for increasing social capital at local level.

8.4 The importance of context in European applications of North American prevention programmes

Apart from the rather macro-environmental context factors described above, other variables at community or intervention level may affect the feasibility of programmes and their outcomes, depending on their setting. In the survey of those who adapted and implemented North American programmes in Europe, 17 of the 18 respondents indicated which of a list of context variables had affected the application (Box 3). It should be noted, however, that eight were referring to their experiences with the SFP. The motivation, competence and training level of delivery staff were reported as the most crucial variable, followed by substance use levels and social factors such as schooling (quality and size of schools, drop-out rates, etc.) and income inequality and levels.

The comments made by the implementers, below, provide further explanation of the issues summarised in Box 3.

Geography

In Ireland, the SFP was easier to implement in metropolitan, urban and suburban areas due to higher concentrations of families, services, and resources there. The implementations in rural areas in Ireland were more challenging due to a wider geographical spread of people and more widely dispersed resources and services. Transportation to training sessions, etc. was an important consideration here and also in the Netherlands. In the Polish SFP, however, it was reported to be 'much more difficult to attract families (and people in general) to any programme in big cities, than in any other place'.

Coastal areas can be special settings, because social exclusion in tourist resorts such as the Balearics in Spain is principally due to the unskilled, seasonal, intensive and low-wage labour force of the tourism economy there. The seasonality of this economy also impacts on the timing of the programme: parents who work in the tourist industry have serious difficulties attending sessions during the tourist season.

Social structure

Relevant for CTC was that disadvantaged areas in Germany are not as disorganised as those in the US. In Germany, the level of health deprivation and the segregation of ethnic groups seems to be much lower.

The income level in Poland and the resources for prevention, mental health, health and social care, etc. are lower than in western Europe and North America. Therefore some programmes — or components of them — were not considered feasible in Poland, even if they work well in more affluent countries.

School drop-out rates were considered important: for example, the Balearics have the highest rates in Spain (higher than the EU average) and in Ireland, early school leavers are at higher risk of developing substance use problems later on in life.

Support by school management and the school structure was an important consideration when implementing, especially, the GBG and Preventure.

Social norms ([17])

Lenient social norms on alcohol were reported, especially from Spain, such as outdoor drinking and the 'botellón' ('big bottle'), but also that the recent restrictive legislation on tobacco had reduced its consumption. In the Dutch SFP, it had to be stressed that drinking alcohol at the meetings was not acceptable and that the use of alcohol and other drugs can negatively influence parenting. For Preventure, designed to focus on personality-specific factors, such informal social norms were much less relevant, even if they may affect participants' likelihood of early-onset substance use.

In the Netherlands and Germany, questions about sexuality were added in the CTC questionnaire, due to fewer taboos surrounding these issues in these countries.

([17]) Visibility and acceptance of tobacco, alcohol, cannabis, sexuality.

Context variables affecting the European application of North American prevention programmes (N=17 survey respondents)

- Motivation and competence of programme delivery staff (13)
- Level of training of programme delivery personnel (12)
- Levels of alcohol use by young people (11)
- Urban (10), rural (9), metropolitan (7), suburban (6) setting
- Income level in implementation area (10)
- Levels of drug use by young people (10)
- Schooling (quality and size of schools, drop-out rates, etc.) (9)
- Levels of alcohol use by adults (9)
- Levels of tobacco smoking by young people (9)
- Profession of programme staff (9)
- Lesson (or other) time for programme delivery (9)
- Overall income inequality at national level (8)
- Predominant education level in implementation area (adults) (8)
- Alcohol advertising allowed (8)
- Acceptance of drunkenness (8)
- Community organisation (7)
- Young offender rates (7)
- Visibility of drunkenness (7)
- Levels of tobacco smoking by adults (7)
- Levels of other drug use by adults (7)
- Ethnic composition of the neighbourhood (6)
- Legislation on alcohol (age restrictions, taxation, price, legislation on blood alcohol content levels of drivers, etc.) (6)
- Negative attitudes towards illicit drug users (6)
- Health deprivation (5)
- Legislation on tobacco (age restrictions, taxation, price, etc.) (5)
- Curfews (e.g. for underage young people to be in bars or out on the street) (5)
- Age restrictions for sales of tobacco and alcohol (5)
- Acceptance of tobacco smoking (5)
- School drop-out rates (4)
- Predominant schooling level in implementation area (4)
- Petty crime rates (4)
- Recorded drug offences (4)
- Recorded vandalism (4)
- Acceptance of cannabis use (4)
- Type of housing (social housing, home ownership, urban high-rise, etc.) (3)
- Industry promotion of alcohol allowed (event sponsorship, etc.) (3)
- Public visibility of tobacco smoking (3)
- Public visibility of cannabis use (3)
- Taboos about sexuality, abortion and divorce (3)
- Taboos about harm reduction, HIV prevention, etc.(3)
- Gender of pupils (3)
- High number of adults with jobseeker's allowance (2)

Staff

Staff-related factors — generally not related to context or culture — were reported most frequently in terms of staff motivation, competence and level of training. Having a national or even local training system for the programmes was seen as crucial to their implementation. It was noted that staff working on the SFP should have knowledge about cognitive behavioural concepts and good interpersonal skills (communication, empathy and warmth) and the belief that families can change and that the programme will work if they engage.

The Irish SFP recommends the group leaders should have a male-female balance and are from the same ethnic backgrounds (or as close as possible) as the target populations.

9 | Conclusions and nuggets for practice

There is a large body of research (e.g. Damschroder et al., 2009; Proctor et al., 2009, 2011; Remme et al., 2010) about implementation science and technology transfer in the health and social care fields. It provides principles for adapting interventions for other contexts, with practical hints to make them more palatable for new target populations. This report aims to complement the existing knowledge base with information on specific issues surrounding the adaptation and implementation of four drug prevention programmes.

This publication has intentionally restricted and compartmentalised the idea of culture, dividing it into context (political and social organisation) and a narrow meaning of culture as values and beliefs. Both influence each other, as both are conditioned by each region's history. Certainly, many of the reported obstacles to the implementation of the four programmes, such as lack of funding and teacher motivation can also be seen as cultural issues in its broader meaning, which includes not only political and social organisation, but also material conditions such as how spaces are used, infrastructure, buildings, laws and the population's available leisure time. However, it is this very tendency to subsume almost everything into 'culture' that has led professionals to see it as an amorphous, metaphysical and insurmountable obstacle to dissemination. If some of the main components of culture are disentangled — while recognising that they condition each other — cultural and contextual factors that are malleable (or at least foreseeable) can be identified.

The experiences of the adapted programmes described here might help to demystify the cliché of the 'programme from another culture'. When local experts and key informants successfully adapt allochthonous programmes to their culture and adjust them to context conditions, they usually seem to work and can be transferred — at least between western cultures. Instead of dismissing the applicability of a programme only because it originates from another culture and context, Europeans might want to consider the following issues that are relevant for practice.

- The key aspect for transferring a programme into other cultures is its robustness — i.e. the amount of adaptive changes the programme's core idea can bear without losing its effectiveness. When the core principles of an effective programme are identified and applied, it can be effective in many situations, provided that adaptations to context and culture make it acceptable to those in the new environment.
- Often, a programme's effective core principles have more to do with its structure than its contents (Jonkman et al., 2009). For example, the discussion about the SFP suggests that contents can and must be culturally adapted, while the protocol itself (such as family sessions, incentives) should be kept. Researchers working with CTC came to the same conclusion. Such single identifiable and effective behavioural components that make programmes such as the GBG or the SFP effective — evidence-based kernels — seem to be responsible for interventions working in different contexts (Embry, 2011). Combining kernels for parenting contexts (from the SFP for example) with those for school contexts (from the GBG for instance) might allow more comprehensive interventions to be designed (Dishion, 2011), which might be more flexibly adapted into school routines and cultures.
- Culture can be broken down into concrete factors to which adaptations of programmes are possible:

  Interventions need to be adapted to culture (in its narrow sense) by adjusting wording, images and examples to different norms and values with the help of the target group and others from the relevant culture.

  Adaptation to context requires knowledge of organisational — and sometimes political — infrastructures and involving them in the planning process.

  Social capital should be considered for assessing resources and resistances to an intervention, and for adapting the implementation strategy accordingly.

This helps to decide how much local authorities should be involved, how much direct involvement of parents can be expected, and whether inter-agency cooperation can be a surrogate for bottom-up community involvement.

Focus groups, nominal groups and other methods from qualitative research are essential, commonly used tools to adapt programmes and they involve the target populations from the outset. It seems that most of the innovative solutions for the adaptation and overcoming resistance in the implementation came from the local collaborators on the 'frontline'.

- It seems more challenging to adapt to context than to culture. For instance, the more a programme targets individuals and their personality traits and is based on neuro-behavioural theories, the less it seem to be affected by context. Thus, the implementation obstacles for Preventure are much lower than for CTC. The latter focuses on communities as a whole and relies more than the other three programmes on prevention infrastructures, community organisation and social capital. Therefore CTC requires more effort to ensure that communication, roles, trust and collaboration between the different levels of partnership are discussed, and that essential stakeholders and volunteers are involved (Crow et al., 2004).
- People are more likely to support and be involved in community or family-based prevention interventions if they have a high level of trust and commitment towards strangers and/or organisations. This and other dimensions of social capital could be assessed by comprehensive, culturally and developmentally appropriate instruments such as the Social Capital Assessment Tool (SCAT) by the World Bank ([18]). However, prevention professionals who implement programmes in communities rarely take this role of social capital into account in assessments of needs, challenges or outcomes.
- An often-reported problem in adapting North American programmes to Europe is that the original protocols make more intensive use of social control mechanisms, such as competitions, setting and reinforcing rules, and introducing norms. The underlying differences in social history (strength of self-government, social capital and Protestant traditions) and possibly social capital explain resistances to a considerable extent and need to be taken into consideration. This is especially the case when such programmes are implemented in those European cultures where social control and community values are less influential and accepted than in northern Europe. This might be the reason for the bias that the programmes described here — except the SFT — were implemented predominantly in European regions where, for historical reasons, context and cultural values were likely to have been more supportive and to have facilitated their acceptance.
- Societies with low social inequalities, high social capital, effective education systems and cohesive communities seem to be more ready to adopt complex and demanding prevention interventions or systems. That said, their resulting low overall vulnerability for social problems, including substance use, might be one of the reasons why allochthonous programmes often have no (or fewer) effects in Nordic countries. Some respondents to the survey said that it makes more sense to implement an intervention where the conditions are worse and therefore the potential for improvement is larger. Under this assumption, efforts to implement high-tech programmes or entire prevention systems like CTC would be more beneficial for those societies that have less prevention resources and social capital, even though more resistance to implementation is to be expected there.
- Few respondents reported problems because the four prevention programmes are manualised, contrary to the assertions of some scholars and policymakers. For example, the transfer of the GBG to Europe seems to confirm that a major obstacle for some European teachers is its prescriptive, detailed format. In the case of CTC, a resistance towards evidence-based programmes was noted. Its implementers from Germany and the Netherlands consider that the US has a focus on prevention programmes and filling service gaps with them, whereas in the European sites, there is universal healthcare, including services for children and young people, and the debate there is much more about changing the direction of existing services.
- Therefore, an influential obstacle to implementing allochthonous programmes is that many Europeans are neither used to, nor equipped for the complexity of high-tech programmes that have been developed in North America. These have been tested and often replicated with sophisticated trials and require the

([18]) http://siteresources.worldbank.org/INTSOCIALCAPITAL/Resources/Social-Capital-Assessment-Tool–SOCAT-/annex1.pdf

use of elaborate manuals, training systems, technical support, supervision, the cooperation of community stakeholders, etc. Some European countries might not have developed the equivalent resources and prevention infrastructure (Andreasson, 2010). The promising Croatian experiences, however, show that communities are able to develop such infrastructures over time when they are convinced of the value of prevention systems such as CTC.

- Context factors seem to most frequently and strongly determine the successful implementation of the school-based programmes (Preventure and the GBG). These factors include the organisation of the school system; its readiness to invest in teacher training; the programme's fit with the core missions of the school (because the GBG promotes concentration on tasks and a reduction in disruptive behaviour in order to create an optimal learning environment); and the motivation of the teachers or facilitators. Analogous factors for the SFP and CTC were communities' self-organisation, cohesion and readiness to commitment. Some of the European adapters found innovative solutions to overcome the lack of community traditions. The interagency model from the Irish SFP implementation might be the most useful alternative in countries with low social capital or where 'community' refers only to local institutions, not to citizens' voluntary involvement.

- Training systems reduce the perception among the teachers and local opinion leaders that effective allochthonous programmes are utterly demanding and too complex. The experiences with the GBG in Belgium and with the SFP in Ireland suggest that having a local (or national) training system is crucial for the acceptance of an intervention, both by the staff involved and the target population. Since this increases feelings of ownership (or even authorship), motivation and identification with the programme in the new sites, the implementation costs can be minimised because individuals and services volunteer to cooperate for no (or little) payment.

- Family-based North American programmes seem to be easier to transfer to Europe than others. Across western cultures at least, the meaning, value and concept of 'family' are shared (Cheung et al., 2011) much more than those of 'community'. The various dimensions of parenting and their role in children's substance use behaviour have been well-studied across cultures (Becoña et al., 2012; Velleman and Templeton, 2005). In all professional circles, the family is a recognised determinant of adolescent behaviour and substance use and this is certainly less contested than the neuropsychological concepts of personality traits on which Preventure is based. Much dissemination research, including in the mental health field (Bernal, 2006), has already provided insight on how to adapt family-based interventions to different cultural family backgrounds. This might explain why the SFP has been more popular than the other programmes in Europe, has needed relatively small adaptations, and has encountered fewer structural obstacles. This is despite the stark contrasts reported between European countries and North America in their commitment to family and child welfare that also affect the transferability of programmes (Ferrer-Wreder et al., 2004).

- Professional cultures sometimes explain some obstacles to implementation. In France, few international prevention programmes have been implemented. During training for the implementation of the SFP in France, Karol Kumpfer reported (personal communication 2012) that trainees seemed to be predominantly familiar with psychodynamics, but were reluctant to accept cognitive behavioural interventions and rejected the concept of disruptive disorders entirely. They commented that they would oppose any intervention approach coming from the 'Anglosphere' (hence not only from North America). On the other hand, the Greek SFP implementers reported an eagerness to trust foreign programmes, at least from North America and the United Kingdom. Programmes such as Preventure, which focuses on personality traits, are fiercely rejected by the predominant professional groups in some countries because they originate from neurobiological or neuropsychological concepts that are an anathema to them.

- Among all the implementation obstacles, culture in terms of different values, language use and traditions seems to be the easiest to overcome when allochthonous programmes are implemented in Europe. Organisational and structural context seem to be a bigger challenge and, above all, the concrete details of the recruitment of participants and training of staff.

- The issues above comprise a huge challenge when implementing entire prevention systems such as CTC. If this is successful, it helps to overcome typical European situations reported by some respondents and in qualitative studies: often, community agencies (such as schools, youth services, the police, social services and NGOs) have no common agreement

about which programme or approach to prioritise, and practitioners therefore believe that 'almost anything goes' (Rantala, 2004). Prevention systems, or the training and cooperation systems that these programme implementations set into motion, can yield a systematic increase in the knowledge and motivation of practitioners and local decision-makers. This provides important synergies to widely implement European drug prevention quality standards ([19]).

- Prevention research is generally less developed in Europe than in North America. The relatively large number of publications about the European implementations and outcome evaluations of the four programmes discussed here suggests that transferring manualised programmes might also stimulate European prevention research. Either the evaluation of new, imported and more sophisticated evidence-based programmes will attract the interest of prevention researchers, or the programmes' manualised and more standardised structure make it easier for practitioners to implement and evaluate them.
- Many decision-makers seem to expect that adopting North American programmes involves high costs and discussions with the programme authors about licenses. However, none of the survey respondents reported such obstacles from the developers of the original programmes, except in the Czech Republic, where the implementation of Preventure is currently suspended. The high demands related to the certification of training seem to be the major obstacle for large-scale implementation of GBG in Belgium and for its planned implementations in Poland and Slovenia.
- Despite all the efforts and challenges in adjusting North American programmes to the cultural and structural conditions of the European implementation sites, the implementers of Preventure, the GBG, the SFP and CTC found it preferable to adapt allochthonous programmes with a strong evidence base and well-developed materials. They considered this a more efficient strategy than developing a completely new intervention.

([19]) http://www.emcdda.europa.eu/publications/manuals/prevention-standards

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The EMCDDA collects, analyses and disseminates factual, objective, reliable and comparable information on drugs and drug addiction. In doing so, it provides its audiences with an evidence-based picture of the drug phenomenon at European level.

The Centre's publications are a prime source of information for a wide range of audiences including policymakers and their advisors; professionals and researchers working in the drugs field; and, more broadly, the media and the general public.

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