



# Support from the Start

# **Support from the Start**

**Working with young children and their families  
to reduce the risks of crime and anti-social behaviour**

**Edited by**

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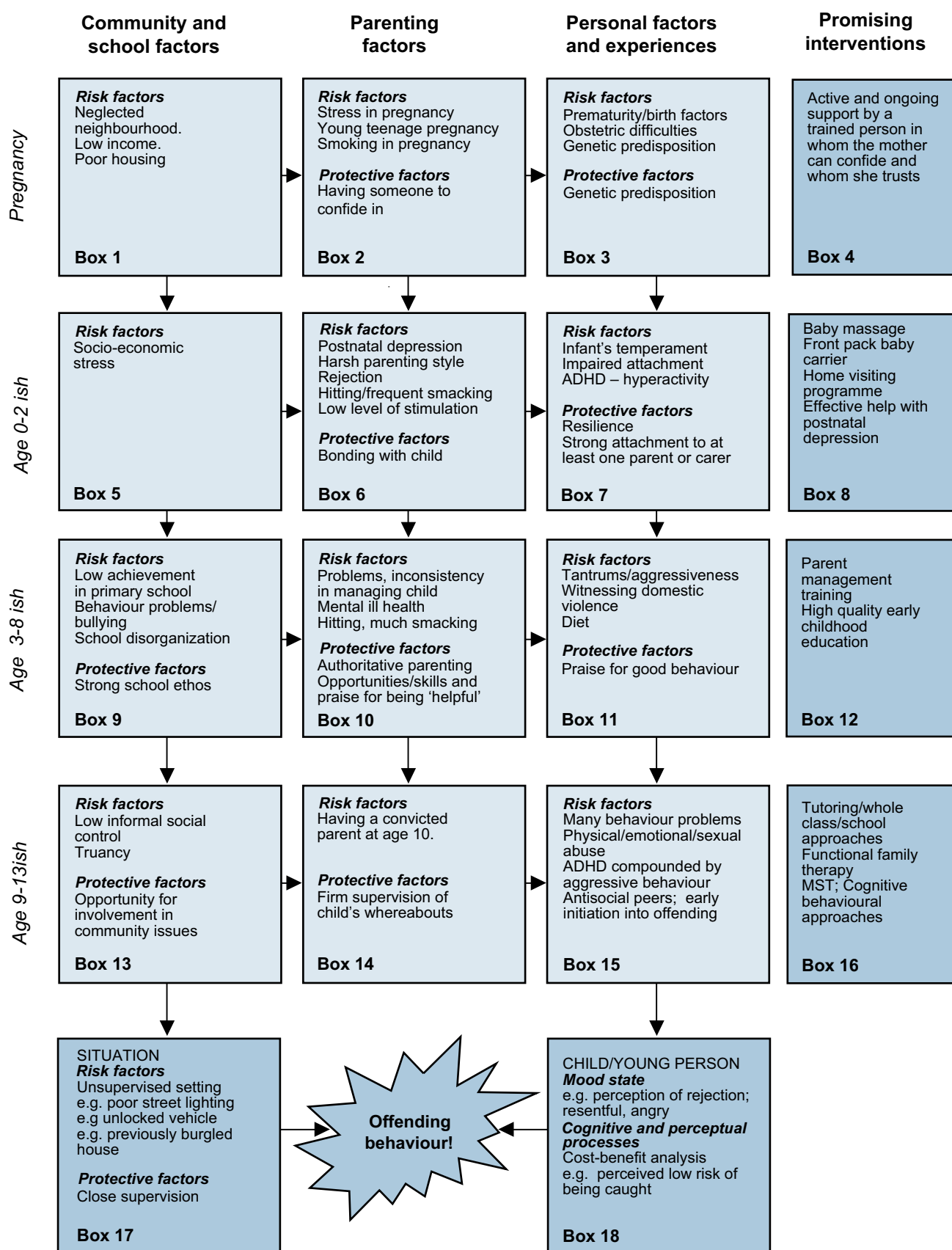
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The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education and Skills.

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## Frontispiece: Risk, protection and prevention



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# Introduction

***Carole Sutton, David Utting and David Farrington***

This report draws attention to the evidence that it is possible to recognise factors that place young children, even before birth, at increased risk of behavioural and other problems as they grow older. More positively, it describes factors that make it less likely children will experience those problems and considers support services capable of reducing risk and increasing protection. The particular focus is on the scope for preventing crime and ‘anti-social behaviour’ – a more general description that includes drug and alcohol misuse, and aggressive and violent, intimidating behaviour as well as crimes involving dishonesty.

This wider concept of anti-social behaviour is appropriate because research has showed that the main factors in young children’s lives associated with an increased risk of later offending are also associated with other problems including substance misuse, precocious sexual activity and teenage parenthood and failure to achieve even minimum qualifications in school (Graham, 1988; Hawkins et al, 1992; Kiernan, 1995). The overlap in risk factors for chronic juvenile offending also extends to schizophrenia, depression and child maltreatment (Yoshikawa, 1994; Mrazek and Haggerty, 1994). Therefore, while couched in terms of ‘criminality’ and psychiatric diagnoses of ‘conduct disorders’, its messages on reducing risk in children’s lives and enhancing protection are no less relevant to preventing other problems that, importantly for young people’s future economic welfare, include educational failure.

## Risk and protective factors

Current understanding of risk and protective factors is chiefly derived from longitudinal research studies in Britain, America and other ‘western’ countries following children’s progress as they grow up. These identify factors that distinguish statistically between those who become involved in crime and other anti-social behaviour and those who do not in ways that are more than a matter of chance. Further research reviews and statistical analyses have helped to distinguish between factors that are merely symptoms and those that appear to be directly or indirectly implicated in the causes of adolescent and adult problem behaviour (for example, Farrington, 1996; Rutter et al, 1998; Loeber et al, 2003).

Research is still needed to discover more about the salience of individual risk factors and the sequences and combinations in which they influence children’s lives. But there is no doubt that different combinations of risk factors produce different cumulative effects and that criminality is likely to be the result of multiple

interactions (Farrington, 2000). The Family Adversity Index described by Rutter and Quinton (1977) provides a useful illustration of this. Rutter (1978) identified six family variables as associated with children's psychiatric and anti-social disorder: marital discord, low socio-economic status, large family size, paternal criminality, maternal psychiatric disorder and child welfare intervention. Children with one of these risk factors were no more at risk of disorder than were those with none. Children with two risk factors, however, were four times as likely to develop disorders as were those with one or none. The effect of multiple risk factors was thus shown to be not only cumulative, but also exponential: interacting to produce ever-higher probabilities of anti-social behaviour.

Countering the adverse influence of clustered risk factors, studies have identified protective factors. These are not simply the opposite of risk factors, but are seen to reduce exposure to multiple risk factors among children who are living in what would otherwise seem to be adverse circumstances (Lösel & Bender, 2003). Werner and Smith (1992), for example, found that exposure to multiple risk factors for delinquency before the age of two was counteracted by protective factors such as whether the child was first-born, active and affectionate, lived in a small family and received a large amount of attention from parents or care-givers (Farrington, 2003). Some researchers have made the case for thinking in terms of risk and protective processes rather than factors. They argue that there is evidence that many of the circumstances that confer risk of, or protection against, offending exert their influence over time, rather than as something that can be assessed in terms of the 'chemistry of the moment'. As we shall see, the circumstances of early childhood can cast a long shadow (Rutter, Giller and Hagell, 1998).

## The frontispiece: a 'public health' approach to prevention

The first four chapters in this report all relate to the chart shown as a *Frontispiece* which groups the main risk and protective factors according to whether they relate to the individual child, to its family circumstances or to the wider community in which he or she is growing up. The chart also suggests the age groups at which different factors appear to be especially influential, or first become so. In other words, it uses knowledge so far as it exists, to suggest an integrated model accommodating risk and protective factors at each major developmental stage through which children pass.

Much of the information shown in the chart will already be familiar to policy makers and practitioners. This is because it provides the underpinning theory for a 'public health' approach to preventive service provision whose value is increasingly recognised in the UK. It argues that current knowledge concerning risk and

protective factors for later offending and other problem behaviour provides an effective tool for tackling crime and anti-social behaviour, even though it is incomplete in explaining causal links. Just as scientific knowledge of the main risk and protective factors for heart disease can be used to launch preventive health campaigns, so an understanding of the childhood risk and protective factors for anti-social behaviour can be used to tackle crime and other problems (Farrington, 2000). It is, however, clear that no single risk factor in childhood can ever be said to 'cause' later problem behaviour. Indeed, research has found that children exposed to clusters of risk factors are more likely to become offenders than those who experience only one or two risk factors in their lives (Rutter, 1978; Mrazek and Haggerty, 1994). It follows that preventive programmes, whether targeting individuals or whole communities, are more likely to be effective when they are designed to reduce multiple risks.

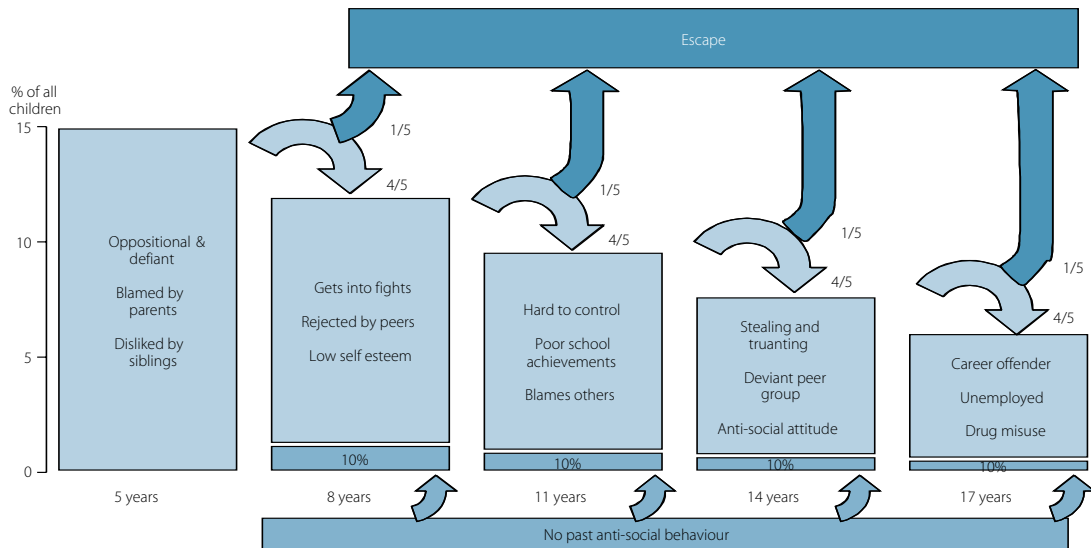
**Note:** To give a complete overview, the frontispiece lists risk and protective factors relating to genetic inheritance and personal characteristics – for example, the increased risk of later offending among males, or the protective effects of an easy, outgoing temperament. Although relevant to understanding whether children may be more or less at risk, they are not easily susceptible to change through support services of the type described in the chapters that follow.

## Numbers

When we refer to children in the UK being 'at risk' of growing into criminal or seriously anti-social young people in the UK what sort of numbers might we be talking about? One research-based indication can be found in Figure 1.1 – a chart prepared for the Home Office by Stephen Scott and published in *Every Child Matters*, the Government's Green Paper on children's services, in 2003. This uses definitions and diagnoses from child and adolescent psychiatry to estimate the proportion of children and young people who are 'anti-social' in age groups between 5 and 17. Its starting point is the one in seven five-year olds (15 per cent) in the United Kingdom whose behaviour is 'oppositional and defiant', who are blamed by parents and generally disliked by their brothers and sisters. Given that 3.5 million children in the UK are under 5, this suggests there are a substantial number whose behaviour in their early years is routinely troublesome. We were disappointed not to find more studies of these groups related to gender, race and culture. There is positive news, in that about 20 per cent of children can be expected move out of this high-risk group during their primary school years, and that further reductions occur as they progress through secondary school. By the age of 17, only half the children behaving anti-socially at age 8 will have grown into anti-social adolescents. This accords with a classic American study by Robins (1966; 1978) which showed that although anti-

social adults had almost always been anti-social as children, most children assessed as 'anti-social' did not go on to become anti-social adults. Nevertheless, the continuities and reinforcement of problems during childhood are all too obvious among the young people who *have* gone on to become chronic offenders, suggesting a strong case for early preventive action.

**Figure 1.1 Continuity of anti-social behaviour from age 5 to 17**



Source: Scott 2002

Research conducted by Stephen Scott for Home Office, 2002 (unpublished).

## Two distinguishable groups: life-course persistent and adolescence limited offenders

That case is reinforced by evidence from longitudinal studies concerning links and continuities between children's very early patterns of behaviour and subsequent offending. For example, a study in Dunedin, New Zealand, started when over a thousand children were three years old, and followed them into adulthood. This suggested there was an important distinction to be made between the pathways followed by children who committed criminal offences and engaged in other anti-social behaviour for a relatively short period during adolescence and the histories of persistent anti-social behaviour from an early age among those who became chronic, serious or violent offenders. (Moffitt et al, 1996).

This matches other criminological studies suggesting that a small sub-group of the population (approximately 5 per cent) account for a disproportionate proportion (50-60 per cent) of all crimes committed. This sub-group is typified by early onset of anti-social behaviour, high rates of offending, and disproportionately violent offending. By contrast, the remaining offenders appear to represent a group whose criminal behaviour starts later and typically reaches a peak much sooner. This

distinction between serious and non-serious offenders has taken a central role in developmental theories of anti-social behaviour. For example, longitudinal studies in New Zealand and the UK found that three-year olds who displayed serious temper tantrums and had parents who were unable to manage their behaviour were statistically more likely than other children to grow into adult, violent offenders (Caspi et al, 1996; Stevenson and Goodman, 2001).

The Dunedin researchers, in company with others, have emphasised the seemingly complex interactions between different risk factors, including the interplay between children's individual characteristics and those of the surrounding environment in which they grow up. They suggest that the central predictive element for anti-social behaviour is a complex process of behavioural regulation. This comprises first, social regulation by the family (such as their use of praise and firm sanctions for the child) and second, the self-regulation which the growing child begins to exercise over his or her own behaviour. This self-regulation may be difficult for the child to achieve because of many factors: including his or her inherited temperament. Thus it is the interplay between self-regulation and social regulation that shapes the child's path to anti-social behaviour (Henry et al, 1996).

A number of different theories have been advanced to explain the different pathways for 'Life-Course Persistent' offenders (LCP) and the much larger group of 'Adolescence Limited' offenders (AL). There is, however, no dissent from the general proposition that children who grow into life-course persistent offenders are characterised by features that consistently bring them into conflict with their surroundings from an early age. For example, Patterson, using data from the longitudinal Oregon Youth Study and many years of clinical research, has suggested the most severe behaviour problems start with a combination of temperamentally difficult toddlers and inexperienced parents. He describes a downward spiral, where parents' ineffective monitoring and discipline inadvertently reinforce their pre-school child's discovery that whining, temper tantrums, hitting and other aggressive behaviours are successful strategies for gaining attention. At primary school the child's repertoire of functional, but anti-social behaviour, expands to include lying, stealing, cheating and truancy. And because they lack pro-social skills, such children tend to be rejected by their peers and associate with other anti-social peers (Patterson et al, 1994; 1998).

By emphasising the scope for support services from the very start of children's lives – indeed, from pregnancy onwards – this report is primarily focused on prevention of life-course persistent offending. The approaches it describes will, however, be relevant to preventing adolescence limited offending as well. Given the contribution that these 'AL' offenders make to quantity, if not the severity, of overall crime and

anti-social behaviour, the potential benefits of preventive efforts in their direction are far from insignificant.

## Support services – what works?

The concept of prevention based on existing knowledge of risk and protective factors gains strength from research investigating the outcomes of services offering different kinds of support. For example the body of this report describes support programmes for families and in schools that have been shown to produce sustained improvements in children's behaviour. A smaller number of research studies monitoring progress over long periods have even been able to link support for parents and children in their early, pre-school years with substantially lower levels of youth offending and anti-social behaviour compared with control groups of similar children. Such studies not only provide models of effective, evidence-based practice, but also reinforce the validity of the risk and protection factor paradigm as a basis for preventive action. For example, the fact that well-designed parenting programmes have led to improvements in children's behaviour indicates that poor parental supervision and discipline – a risk factor – is implicated in causation (Farrington, 1996; 2000b).

However, when turning 'multifactorial' models into practice, those responsible for child, family support and education services will understandably demand to know: 'what works?' The answers in the chapters to come are provided, in a number of cases, by researchers who are also practitioners. Thus, while not pretending to provide a comprehensive or systematic overview of the international literature, the report does reflect the authors' hands-on experience besides knowledge of relevant research studies, including their own. Since several of the authors have particular experience in delivering and evaluating parenting programmes, that too, is reflected in the report. Based on papers originally presented at a series of seminars funded by the British Psychological Society at the Royal Society in London, the chapters have been compiled from the authors' desire to share that experience and knowledge with a wider audience, especially service planners and providers.

Another reason that some readers may find the choice of good practice examples selective is the authors' firm view that some methods of evaluation are a more effective gauge of a service or programme's effectiveness than others. In general, they consider that the most dependable evidence can be derived from studies where outcomes for a group of participants in a programme have been compared with outcomes for a similar 'control' group who did not take part. Use of a comparison design makes it more reasonable to conclude that any changes observed can be attributed to the positive (or negative) effects of the programme. Randomised

Controlled Trials (RCTs), familiar from medical research, are sometimes referred to as the 'gold standard' in this regard, because participants are selected because they meet certain criteria and only then allocated at random to 'experimental' or 'control' groups. Yet even when a particular programme or intervention has been shown, convincingly, to achieve positive outcomes for the participants, it may be important to find out whether the results can be replicated for other types of participant or in different settings. Relevant questions may also be raised about sample sizes and the statistical strength of the results, and about the duration of the research. In other words, is there evidence of good outcomes being maintained over time?

## The Scientific Methods Scale

Crime prevention researchers in the United States have encouraged policy makers and practitioners to pay more attention to the quality of evidence by devising a Scientific Methods Scale (Sherman et al, 1997). This places evaluation findings in five categories according to the ability of the study to eliminate other potential explanations for the results.

The five resulting categories are summarised in Table 1.1

In the examples, the criteria are based on the assumption that appropriate sampling and use of reliable and valid measures of the independent and dependent variables have been used.

Applying these levels, Sherman and colleagues (1997), felt able to divide the research evidence concerning different prevention programmes into four broad categories:

- **'What works'**: programmes where it is reasonably certain they prevent crime or reduce risk factors and the findings can be generalised to other settings. Programmes with positive, statistically significant results from at least two level 3 evaluations are considered to be 'working' provided all the available evidence shows them to be effective.
- **'What doesn't work'**: programmes where at least two level 3 evaluations have showed ineffectiveness and the preponderance of evidence supports that conclusion.



**Table 1.1: Scientific Methods Scale (after Sherman et al, 1997)**

Level of quality of methodology	Key features	Example
1	Simple correlation	It is found that offending rates are lower in localities where there is a regular youth club. Is there an association between the two sets of circumstances? If there is an association then this needs to be examined further.
2	An uncontrolled study: using 'before' and 'after' measures, but without a comparison group	The offending rate in a given locality is measured before the school holidays, during which a parent support group is held. The offending rate in that locality then goes down. How confident can we be that there is a causal link between the holding of the parenting group and the reduction in offending? Without the possibility of comparing the offending rate in an experimental group with that in a control group, the reduction in offending cannot be directly attributed to holding the parent support group.
3	A 'quasi-experimental' study, with comparison groups; data is gathered before and after the study, and compared statistically	The offending rates in two similar school catchment areas are measured before the school holidays. In school A, a parenting support group is set up for 10 weeks. In school B no parenting support group is set up. The offending rate in school A goes down; that in school B remains the same. There is <i>prima facie</i> evidence that the parenting support group is contributing to the reduction of the offending rate in school A. This hypothesis needs to be tested far more rigorously.
4	As in level 3, but with many groups and with controls for external influences)	The offending rates in ten similar school catchment areas are measured before the school holidays. In 5 schools a parenting support group, using a validated programme, is set up for 10 weeks. In the other 5 schools no parenting support group is set up. In the schools offering the parent support group the offending rate goes down; in the remaining schools it remains the same. There seems to be substantial evidence that the parenting support group is contributing to the reduction of the offending rate in those schools offering the group. The link needs to be tested even more widely to see if the association is maintained.
5	As in 4, but with random allocation of participating individuals/groups to experimental and control conditions	A large number of schools within similar catchment areas across different cities are randomly assigned to experimental and control conditions. In half the schools a parenting support group is set up for 10 weeks. In the other half of schools no parenting support group is set up. In the schools offering the parenting support group the offending rate goes down; in the remaining schools it remains the same. It seems increasingly probable that the parenting support group is responsible for the reduction in the offending rate.



- **'What's promising'**: programmes where there have been positive results from evaluation using a comparison design, but the level of certainty is not high enough to reach generalisable conclusions. Their effectiveness has been demonstrated in at least one level 3 evaluation and most other evidence is positive.
- **'What's unknown'**: Any programme that cannot be placed in the other three categories.

Frustratingly for those who have to plan or deliver services, most child and family support services in Britain relevant to preventing anti-social behaviour and criminality fall into the 'what's unknown' category. They include many programmes and interventions that have never been evaluated. Others, even though their popularity with participants and professionals has been established, have not been evaluated above levels 1 or 2 on the scale.

Nevertheless, in the interests of encouraging greater rigour concerning the use of terms such as 'evidence' and 'effectiveness', the chapters in this report concentrate their attention on programmes that have been evaluated to level 3 standard and above. These are the more 'promising' approaches identified by research, and they are described with special emphasis on those that have been applied in the UK.

## Tiers of prevention

One further element of the selective approach that the authors have taken concerns the definition of 'prevention' itself. As practitioners in a range of disciplines are agreed, preventive services can be usefully divided into different, but overlapping, tiers, according to what is being prevented and who is being targeted (Table 2). Primary prevention consists of 'universal' services, aimed at the general population. Secondary prevention aims to stop problems from festering into crises and targets families, schools, neighbourhoods or individuals 'at risk'. Tertiary prevention describes interventions at the 'eleventh hour' or when a crisis point is reached. Table 1.2 describes these preventive tiers in the context of crime and anti-social behaviour.

**Table 1.2 Level of prevention**

Level of prevention	Target	Examples of delivery mechanisms
Primary	Whole communities (to reduce risk factors for crime and anti-social behaviour and enhance protective factors)	Universal support services (antenatal health care; pre-school education etc.) Public awareness campaigns (e.g. anti-bullying initiatives in schools)
Secondary	Families, schools communities where children are 'at risk' of later offending	Neighbourhood family centres and government-funded initiatives e.g. Sure Start. Reading recovery schemes in schools. Helplines for parents and children.
Tertiary	Prevention of re-offending	Programmes overseen by Youth Offending Teams. Parenting Orders and Anti-social Behaviour Orders made in court. Intensive Supervision and Surveillance Programmes.

At present, the greatest investment of resources in dealing with offending and anti-social behaviour is at the tertiary level, with some provision at the secondary level. Conventional wisdom argues that prevention is better than cure. And not surprisingly, given the multi-billion pound costs of crime and of processing offenders through the criminal justice system. For example, the Audit Commission (2004) has calculated that effective early intervention with just one in ten of the 7,500 young people under 18 who are sentenced to custody each year in England and Wales could save more than £100 million a year for public services. But beyond that, there is a small but growing body of economic evidence to suggest that public money invested early in primary and secondary prevention can be more cost-effective in reducing crime than third tier programmes – even though work with known offenders is, by definition, more accurately targeted. Further information about this can be found in Chapter 6.

The remaining chapters are firmly focused on primary and secondary preventive programmes. Chapters 1 to 4 discuss the evidence concerning risk and protective factors and preventive services in relation to pregnancy; birth to two years; three to eight years; and nine to 13 years. For each time span, they examine the impact of several systems of influence, moving from the broader influence to the narrower:

- community and school
- family and parenting processes
- heredity and early experience

Descriptions of promising approaches in these chapters are followed, in Chapter 5, by consideration of the no less important issues concerning implementation. This recognises that even the most impressively evaluated prevention programme is of little practical value unless it can be successfully replicated and implemented in ways that retain its active ingredients.

Some conclusions and their implications for policy makers and practitioners are set out in Chapter 7.

# Chapter 1: Pregnancy

*Carole Sutton and Vivette Glover*

## Introduction

A number of major risk factors for children's behaviour and mental health problems relate to pregnancy. The best known of these is low birth weight: linked with a negative influence over children's healthy development and, in concert with other risk factors, their behaviour. But studies have examined other factors that also appear to contribute to the risks of childhood behaviour problems. These are considered in this chapter under four different headings:

- stress during pregnancy
- smoking during pregnancy
- prematurity, obstetric difficulties and low birth weight
- pregnancy at a young age

Although they are not themselves susceptible to the kind of interventions and support services discussed at the end of the chapter, consideration is also given to genetic factors.

## Stress during pregnancy

Glover and colleagues (2002) have argued that in order to prevent the development of offending behaviour in children, we should offer active support to mothers during pregnancy. This follows the evidence from a number of studies linking anxiety experienced by pregnant mothers with subsequent behavioural problems in their children. For example, in their studies as part of the Avon Longitudinal Study of Parents and Children (ALSPAC), O'Connor, Glover and colleagues (2002) collected data from nearly 7,500 women from pregnancy onwards. This focused on their antenatal and postnatal experiences, and on their children's emotional and behavioural characteristics during the pre-school years. The results showed that women who experienced high anxiety at 32 weeks gestation were twice as likely (10 per cent) as other mothers (5 per cent) to have a child with behavioural and/or emotional problems at age four. This was not found to be the case with mothers who were anxious at eighteen weeks gestation, but not thereafter. Even after controlling for other possible explanations, the analysis still showed strong and statistically significant links between antenatal anxiety and children's behavioural problems.

However, perhaps the most impressive finding was that elevated levels of anxiety in late pregnancy were associated with an increased likelihood of attention-deficit, hyperactivity disorders (ADHD) in boys, as well as overall behavioural/emotional problems in children of both sexes. Among the most anxious mothers (the highest 15 per cent of scores) a son's subsequent risk of ADHD-type behaviour doubled from one in 20 among the overall population to one in 10. More recent analyses by the same group have shown that the link persists until children are at least seven years old, and that it is independent of, and in addition to, the negative effects associated with maternal postnatal depression. Several smaller studies have reported a link between mothers' anxiety levels during pregnancy and behavioural problems in children (for example, Huizink et al 2002; Brouwers et al 2001). That maternal anxiety during pregnancy is a risk factor for children's later behavioural problems (especially ADHD) is thus well established.

Less clear are the mechanisms explaining that association. It may be that anxious mothers have a genetic make-up which, when transmitted to the child, results in behavioural problems. It may also relate to the way that the child is parented by its (anxious) parent. However, there is some evidence to suggest that the effect of maternal anxiety is, at least partially, a direct one on the development of the foetus. In the ALSPAC study described above, the link was only found among children whose mothers had been anxious in later pregnancy and at no other time. This view is supported by strong evidence from studies of animals, which indicate that if a mother is stressed during pregnancy it has a direct, long-term effect on the foetus and long term effects on the offspring (Weinstock, 2001). For example, when pregnant monkeys were stressed by exposure to unpredictable noise, their offspring had lower birth weight, poorer neuro-motor coordination and impaired attention. Findings of impaired attention are common to many such studies and have led one research team (Schneider et al, 1999; 2001) to conclude that the behaviour of the monkeys they observed was similar to that of children described as 'difficult'.

There is, therefore, good evidence to support a view that stress or anxiety during pregnancy has a direct effect on the developing foetus; and that this, in turn, leads to behavioural problems in the child. Unfortunately, there are no high quality research studies, as yet, of the effects of support services designed to reduce maternal anxiety during pregnancy, nor of their outcomes in terms of children's behaviour. Nevertheless, it seems likely that home visiting by family workers and other support provided in the effective *Nurse-Family Partnership* programme for young mothers in the United States (see below) might stand a good chance of preventing antenatal stress among mothers in this wider context.

## Smoking during pregnancy

The evidence that smoking during pregnancy is a risk factor for later child behavioural problems is also strong. Indeed, there is an overlap with the previous risk factor because some women who experience stress in pregnancy may resort to smoking as a coping strategy – perhaps unaware that this poses a serious risk to their babies' health and development. Other women who smoke during pregnancy are simply continuing with a habit that they have acquired during adolescence or even earlier.

Wakschlag et al (1997) found that mothers smoking more than six cigarettes daily during pregnancy were more likely to have a child who later developed a diagnosable behaviour problem than mothers who did not smoke during pregnancy. These researchers concluded that smoking is a robust independent risk factor for conduct disorder in male offspring. A study by Brennan et al (1999) found even more persuasive evidence. Mothers in a longitudinal study involving more than 4,000 boys born between 1959 and 1961 reported their own smoking during pregnancy. The researchers subsequently found a close relationship between differing levels of maternal antenatal smoking and arrests in adulthood for both violent and non-violent crime. ADHD in children has, also been linked with mother's consumption of alcohol during pregnancy (Mick et al 2002).

In the search for possible mechanisms, animal and human studies have both indicated that exposure to nicotine during pregnancy is associated with adverse changes in a baby's neural functioning and with cognitive (reasoning and understanding) deficits and behaviour problems in children. Its effects seem to predispose children to impulsivity, behavioural problems and attention disorders – all suggesting damage to their underlying neural structures. It therefore seems probable – although not certain – that the link between smoking in pregnancy and later behavioural problems is at least partly causal (Wakschlag et al 1997). Support programmes that help women give up smoking (and significant alcohol consumption) during pregnancy are the obvious preventive response.

## Prematurity, obstetric difficulties and low birth weight

There is substantial evidence that premature birth and obstetric difficulties pose substantial risks to the developing child. Low birth weight is widely recognised as a risk factor for a range of subsequent difficulties. This can be due to growth restriction in the womb or to premature delivery. An infant with low birth weight is at increased risk of neurological impairment and of experiencing more cognitive difficulties than a child with higher birth weight. For example, Sykes et al (1997) tracked 243 premature babies (below 1500g at birth) who were matched with a

comparison group of full-term babies. It was found that primary school children who had been born prematurely, both boys and girls, were rated by teachers as showing more behaviour problems than the controls and were less well adjusted to the school environment. Middle et al (1996) reported a higher rate of health and educational problems in children weighing under 1500 grams at birth by comparison with those weighing 2500 grams or above; while Pharoah et al (1994) reported a higher prevalence of children with behaviour disorders, including hyperactivity, among children with low birth weight.

These findings largely relate to babies born after less than 32 weeks gestation, or weighing less than 1500g at birth – about one per cent of the total population. Hence, although they may be over-represented among children with behaviour problems, their overall contribution to the total number of young people who eventually offend is likely to be small. It should also be noted that there are no simple answers in term of intervention. Much obstetric research is currently committed to understanding the causes of both prematurity and intrauterine growth restriction, which clearly relate to multiple factors. Infection is one of the known causes of pre-term labour, but family poverty and social disadvantage are also associated with low birth weight (Roberts, 1997; Lund et al, 1999; Pattenden et al, 1999) as is maternal stress during pregnancy.

### **Pregnancy at a young age**

About ten per cent of births in the UK are to mothers aged 19 and under, including 6 per cent to mothers under 18. Studies comparing young teenage mothers with mothers who postponed their childbearing beyond age 20 have found that teenage motherhood is associated with low educational achievement, low income, low occupational status and large family size (Kiernan, 1995). However, since poor adult outcomes have also been found for women giving birth under the age of 23 the term ‘teenage parent’ may mislead when it comes to targeting support services (Hobcraft & Kiernan, 1999).

A recent study of teenage mothers in Britain found that young mothers encountered more socio-economic deprivation, experienced more mental health difficulties and had fewer sources of support within the neighbourhood compared with a sample of older mothers. Their partners were less reliable and supportive, both economically and emotionally, and were more anti-social and abusive. The children of the young mothers showed lower educational attainment, were rated as having more emotional and behavioural problems, were at increased risk of maltreatment or harm and showed higher rates of illnesses, accidents and injuries. (Moffitt and colleagues, 2002.) In addition, as the Government’s Social Exclusion Unit has noted

(Botting, 1998) children born to teenage mothers are more likely to become offenders and to become teenage parents themselves. A large-scale investigation in the United States found that being born to a mother under the age of 18 was associated with a three-fold risk of becoming a chronic offender by comparison with the risk when a child was born to a mother over the age of twenty (Conseur et al, 1997).

## Genetic factors

Evidence of the contribution of a genetic component to certain risk and protective factors has become clearer in recent years. A detailed discussion of the possible genetic and biological components can be found in Rutter et al (1998). Clearly, there is no 'gene for crime' but it does seem likely that a number of different genes affect behaviour indirectly through risk factors such as hyperactivity or impulsivity. (See Eaves et al, 1997, Goodman and Stevenson, 1989, Sherman et al, 1997). Genetic influences are likely to be strongest in Life Course Persistent anti-social behaviour that first appears in early childhood and least implicated in Adolescence Limited offending (see Introduction). Indeed Rutter and his colleagues note that the genetic component for hyperactivity has been estimated as high as 60 to 70 per cent of variance. The issue of ADHD is considered further below.

Genetic variation may contribute to either vulnerability or resistance. Caspi et al (2002) examined over a thousand children from the Dunedin study, identifying those who had experienced maltreatment, such as coercive and punitive parenting in childhood. Harsh parenting is itself a risk factor for later offending (see Frontispiece) and the researchers were particularly interested in children who did not go on to develop anti-social behaviour in spite of their experiences. They discovered that the maltreated children who did not offend carried a genotype with a high level of a specific enzyme (MAO A) that gave them protection. In biochemical terms these children were more resilient in the face of harsh treatment. This finding identifies a specific genetic component to previous observations that children who are temperamentally resilient or outgoing, with a strong sense of self-efficacy, are buffered against their exposure to multiple risk factors (Garmezy 1985; Radke-Yarrow and Sherman, 1990; Werner and Smith, 1992).

## Effective interventions during pregnancy

The most promising services for pregnant women, in terms of reducing the risks of later anti-social behaviour and enhancing protection for their children, are those that offer them high quality social support alongside antenatal medical care. The *Nurse-Family Partnership* programme in the United States (also known as the Elmira Project) is a good example because it has been evaluated to a high methodological



standard, where participants were randomly allocated to one of three conditions and their children were followed up when they were adolescents (Olds et al, 1998). Some 400 mothers participated, of whom more than half came from households of low socio-economic status; and 62 per cent were unmarried. The mothers were allocated to one of three regimes of visits by nurses:

- fortnightly home visits of about an hour during pregnancy
- fortnightly home visits in pregnancy and continuing during the first two years of life
- a comparison group that had no visits

Families in the experimental group had an average of nine such visits during pregnancy and 23 home visits during the child's first two years of life. The comparison group received standard antenatal and 'well-child' care in a clinic.

The home visitors focused on three aspects of the mothers' experience:

- Positive health-related behaviours during pregnancy and the early years of the child's life
- Competent care of the children
- Maternal personal development (including family planning, educational achievement and opportunities to gain employment)

The visiting nurses helped families with access to health care and other services and attempted to involve other family members and friends in the pregnancy, birth and early care of the child. Follow-up data collected by Olds and his team (1986a; 1986b) showed that:

- Teenage mothers had heavier babies
- Mothers who had smoked decreased their smoking and had fewer premature deliveries
- They had fewer instances of verified child maltreatment in the child's first two years

This last finding is particularly important because it has been shown that preventing child abuse not only protects the child from harm in the short term, but is also likely to yield long-term benefits by reducing the chances that the child will become involved in violent offending and child abuse itself (Widom, 1989).

A follow-up study by Olds and his colleagues fifteen years later (1998) found that the, by then, adolescent children of the mothers who received support had fewer behavioural problems relating to use of alcohol and other drugs and smoked less than the children of mothers in the comparison group. They also had less than half the rate of criminal convictions and breaches of probation. Positive changes were also noted among the mothers who received support in respect of lower dependence on state benefits than the comparison group mothers.

The *Nurse-Family Partnership* programme demonstrated how a sustained social support programme for mothers-to-be was able to reduce three of the four antenatal risk factors described at the start of this chapter: smoking during pregnancy; prematurity and low birth weight; and birth to a young mother from a socially deprived background. Although it was not measured in the evaluation there are reasons to believe it could play a part in reducing maternal stress as well; the fourth risk factor discussed. Given the intensity of the approach, it is probably best considered as a secondary prevention option, especially suitable for work with mothers-to-be from disadvantaged neighbourhoods and those in their teens and early 20s. The UK, with its tradition of health visiting by trained nurses and its growing experience of offering pre- and postnatal support through the *Sure Start* programme would be well-placed to implement a sustained programme of this kind.

## Chapter 2: Birth to two years

*Carole Sutton and Lynne Murray*

How soon is it possible or, indeed, appropriate to identify grounds for concern about children who are heavily exposed to the main risk factors associated with later problem behaviour (see Frontispiece) and whose lives lack the protective factors known to attenuate risk? The previous chapter described how some babies incur substantial risks even before birth. This chapter develops the theme of cumulative risk and protection affecting very young children from birth to two years old.

A body of research has started to emerge that suggests we should be seeking to reduce risk factors and increase protective factors by offering sustained support to parents of very young children indeed. For example, researchers in the United States found that, in their sample of infants, behavioural problems could be predicted in babies as young as six months (Bates et al, 1991). Others have shown that developmentally maladaptive behaviour can be identified in 2 year olds, and that such behaviour problems are far more persistent than hitherto believed (Rose et al, 1989; Sroufe et al, 1990; Weinfield et al, 2000).

### Environmental factors

While genetic factors (referred to in the previous chapter) and temperament (considered further below) undoubtedly influence children's emerging patterns of behaviour, the circumstances and environment into which they are born also have a powerful impact (Rutter et al, 1998). For example, a British study of 3,530 same-sex twins, both 'identical' and 'fraternal', compared the impact of environment across six different types of neighbourhood, from very disadvantaged to affluent. This showed that children in deprived neighbourhoods were at substantially increased risk of emotional and behavioural problems over and above any genetic liability; and that this increased risk was discernible in children as young as two years (Caspi et al, 2000).

It is unlikely that disorganised and deprived neighbourhoods impact directly on infants. Rather, the available evidence suggests that such environments affect parents, whose capacity to care for their children is, in turn, placed under stress. Thus, in disorganised high-crime neighbourhoods it is harder to get local people to form friendships and supportive neighbourhood networks (Sampson, 1997). It is also more difficult for parents, schools and faith communities to reinforce positive, pro-social attitudes (Sampson et al, 1989). While this is discouraging, it is important to realise that substantial improvements can be achieved in children's lives by improving their family circumstances and living conditions. As noted in the

introduction to this report children's behaviour patterns can – and do – change. Young children should never be described or treated as though they were irreversibly locked into a future of anti-social and offending behaviour.

## Family factors

For babies and very young children the developing relationship and bond with their parents and main carers is especially important. Before going on to consider examples of support services that show promise in promoting the kind of warm, affectionate relationships that are protective against risk, this chapter looks at particular risks relating to family and parenthood in the first two years. These are:

- Postnatal depression
- Impaired bonding
- Insecure attachment
- Low levels of cognitive stimulation and language delay
- Harsh and neglectful parenting
- Maltreatment in childhood
- Characteristics and temperament

## Postnatal depression

There is now abundant evidence of the potentially damaging effects of postnatal depression on the developing infant. Murray, Cooper and colleagues (2003) have reviewed a range of research following up the children of mothers diagnosed with this disorder and comparing their progress with that of children whose mothers did not experience postnatal depression. The evidence from a number of studies shows that chronic maternal depressive disorder, particularly that occurring in the context of general adversity, poses a significant risk of child behaviour problems.

## Impaired bonding

One of the common consequences of postnatal depression is reduced interaction between the mother and baby and the consequent possibility of impaired bonding between them. (In this report, the term 'bonding' is used to refer to the characteristic close relationship that develops between parent and child while the term 'attachment' is typically used to refer to the relationship demonstrated by the baby towards the parent). Several studies in the US have observed families living in conditions of severe disadvantage, and have found consistent associations between

the occurrence of postnatal depression and marked impairments in maternal responsiveness to the infant (Campbell, Cohn and Myers, 1995). These include hostile and intrusive interactions, as well as disengaged and withdrawn behaviour. (In low-risk samples, difficulties of maternal responsiveness to the infant are still apparent, but they generally tend to be of a more subtle nature).

Repeated interactions of this kind contribute to the development of longer-term difficulties in the baby's behaviour which themselves place the child at risk of anti-social behaviour. These difficulties include low scores on 'IQ' measures of intelligence (especially in boys), impairments in the baby's capacity to control his/her emotions and behaviour, and inability to sustain attention. Although the mechanisms underlying the links between maternal depression, mother-baby interaction difficulties and the children's subsequent developmental problems are not fully understood, it is likely that antenatal influences and genetic factors also contribute. Babies born to depressed mothers are typically less active and socially responsive and are more irritable than babies born to mothers who are not depressed (Dawson et al, 1997).

## Insecure attachment

A warm, affectionate bond of attachment between a child and its parents from infancy is, conversely, an important protective factor capable of attenuating exposure to risk and later anti-social behaviour (McCord, 1982; Garmezy, 1993). In a seminal study, Ainsworth and colleagues (1978) grouped one year old infants into three main categories on the basis of their responses to their mothers after brief separations, lasting only a few minutes. Later, Main and Solomon (1990) suggested a fourth category.

- *Securely attached*: Child separates readily from caregiver; when frightened, child seeks contact and is quickly comforted.
- *Insecurely attached 'avoidant'*: Child avoids contact with mother especially at reunion after an absence.
- *Insecurely attached 'ambivalent'*: Child is greatly upset when separated from mother, but is not reassured by her return. Child seeks and avoids contact at different times.
- *Insecurely attached 'disorganised'*: Confused or apprehensive behaviour. Child may show contradictory behaviours at the same time, such as moving towards mother, but keeping his eyes averted.

When the children were followed up in later life, the 'insecure' children had greater difficulties than the 'securely attached' children. In particular, 'insecure avoidant' children, and 'insecure disorganised' children were most at risk of displaying aggressive behaviour with their peers (Main, Kaplan and Cassidy, 1985; Greenberg et al, 1999; Lyons-Ruth and Jacobowitz, 1999).

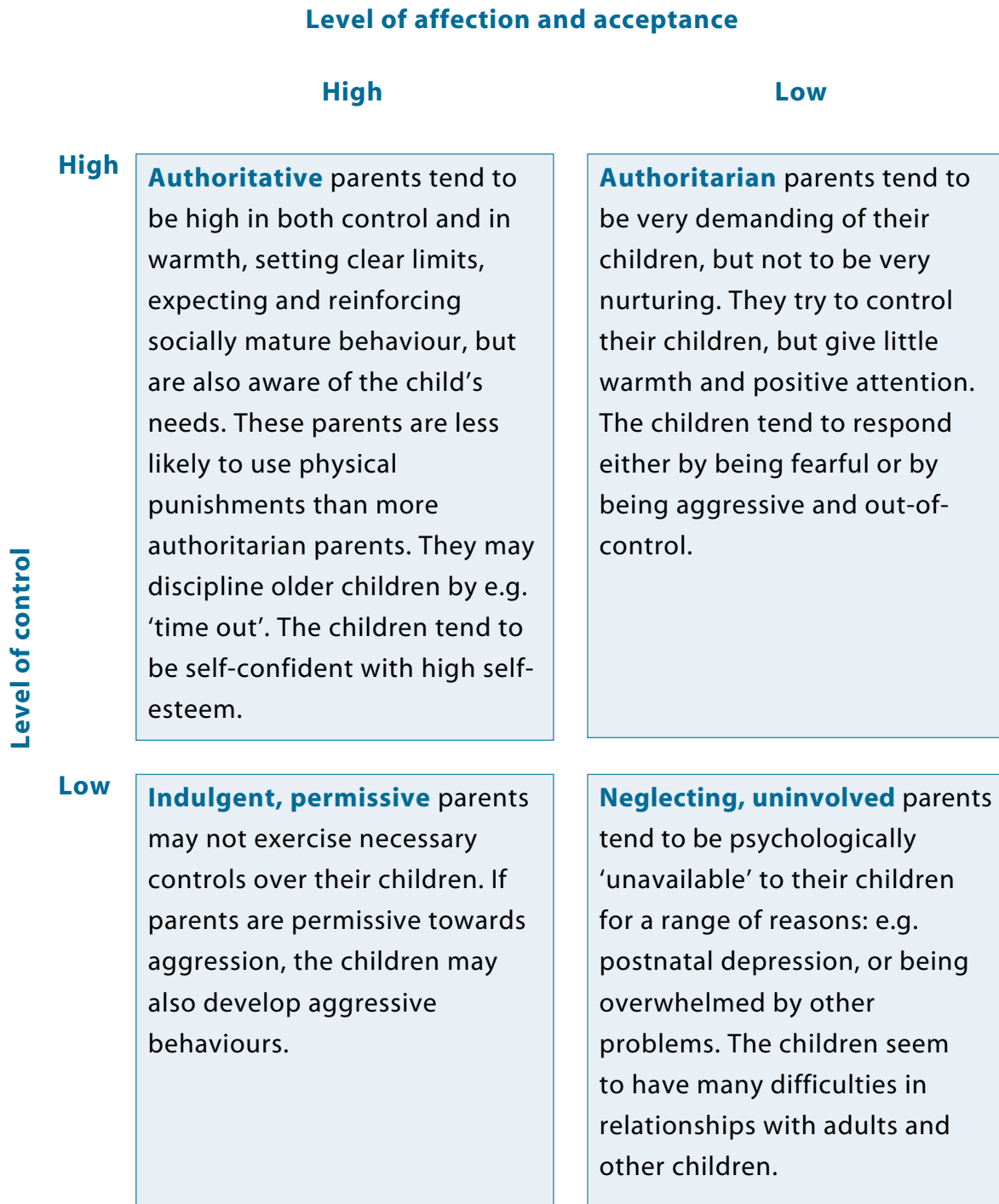
### **Low levels of cognitive stimulation and language delay**

As Murray and Cooper have shown (2003), one of the casualties of postnatal depression or high levels of stress affecting mothers is likely to be their child's cognitive and language development. Since it is not commonly understood that language and thought develop in response to 'talk, touch, gaze' on the part of the infant's caregivers, many children do not receive the desirable and necessary stimulation in these earliest years of life for optimum linguistic and cognitive development. This can seriously impair their subsequent school achievement and pave the way for difficulties and disappointments throughout a child's educational and social experience. Some commentators have made the case for language being the primary means by which parents and others who care for children influence their behaviour. Delayed language development may, thus, increase a child's stress levels and hinder processes of socialisation – all helping to explain why it has been found to be a risk factor for criminality up to the age of 30 (Stattin et al, 1993).

### **Harsh and neglectful parenting**

Longitudinal studies have consistently identified children's experience of harsh, cruel and neglectful parenting as a major risk factor for anti-social behaviour and later offending (Farrington, 1996). One of the most influential studies of parenting style is that of Baumrind (1971) who, from her observations, placed these styles in three groups: 'permissive', 'authoritarian' and 'authoritative'. Her work was developed by Maccoby and Martin (1983) who noted 2 main dimensions, yielding four main styles of parenting. See Figure 2.1.

Figure 2.1: The two main dimensions and four main styles of parenting (after Maccoby and Martin, 1983)



It is the very authoritarian parenting style that appears to lead to the poorest outcomes for children. Several mechanisms may be involved, for example:

- The child reacts with hostility to the harsh parent and develops a relationship that is full of conflict
- The child is frightened by the harshness, and avoids the harsh parent wherever possible

- The child, lacking other models of interaction, imitates the harsh parent and is aggressive with other children

Research has thrown light on the impact of harsh parenting in the very earliest years of life. In line with the studies of the impact of low birth weight, there is evidence that birth complications, combined with harshness and rejection by the mother of her child at one year old are associated with an increased risk that the child will be involved in violent crime by age 18. The impact of parenting style on toddlers is, from that perspective, all too profound (Raine, Brennan and Mednick, 1994).

In the growing field of research into infant brain development, Perry (1997) has suggested that any factors that increase the activity or reactivity of the brain stem such as chronic, traumatic stress, or which decrease the capacity of the cortical areas to moderate that reactivity, may increase an individual's aggressiveness and impulsivity. For example, the brain stem of a young child growing up in an atmosphere of unpredictable violence, such as families where routine domestic abuse takes place, is likely to become over reactive, by comparison with that of a child developing in a calm environment. If that unpredictable violence persists, the young child may learn to become hyper-vigilant to perceptions of threat; and this hyper-vigilance may undermine his capacity to concentrate on ordinary childhood activities, as well as making him over-prepared to respond impulsively and aggressively. The young child may, thus, acquire a tendency towards aggressiveness in terms of physiology *and* by modelling himself on aggressive people in his environment.

A number of studies have sought to discover what contributes to positive parenting in otherwise difficult circumstances. For example, a recent exploration of protective factors among more than 180 African American teenage mothers found that positive self esteem, maternal maturity and positive relationships between young mothers and their own mothers were all significantly linked to positive parenting during early infancy. The role of grandparents has all too often been ignored in research studies of parenting and the lessons drawn from this study could well be relevant outside the United States (Reiner Hess, Papas, and Black, 2002).

## Maltreatment in childhood

There is growing recognition that young people who offend are significantly more likely to have previously been victims of child abuse and/or neglect than non-offenders, and to have been 'looked after' by local authority social services. Indeed, two British studies showed that 72 per cent of young offenders held in secure settings have experienced some kind of maltreatment (Boswell, 1995; Falshaw and



Browne,1997). In the United States, one study reported four out of five young people in secure accommodation disclosing that severe abuse had occurred during their childhood (Stein and Lewis,1992). Although the majority of maltreated children do not become offenders, it has been suggested that childhood maltreatment and/or witnessing violence may be a primary cause of conduct problems in children and young people (O'Connell-Higgins, 1994; Hamilton, Falshaw and Browne, 2002).

## Individual factors

### Temperament

It seems that more attention is paid in the United States than in Britain to the innate characteristics of a child's temperament – defined as stable individual differences in quality and intensity of emotional reaction, activity level, attention and emotional self-regulation (Rothbart and Bates, 1998). For example, Thomas and Chess (1977), following the lives of 141 babies as they developed through childhood and adolescence, identified three main groups:

- *Easy children*: Those who were adaptable, flexible and easy to manage. They slipped easily into routines such as feeding and sleeping.
- *Difficult children*: Those who were tense and irritable in their reactions; they were more difficult to get into routines and tended to react negatively and intensely.
- *'Slow to warm up children'*: Those who fell between the two other groups. They were initially tense and cried a great deal but gradually settled and were then fairly easy to manage.

While the evidence for the enduring power of innate characteristics of temperament is not overwhelming, there is a good deal of evidence that it is the middle group, those with 'difficult' temperaments, who go on to have the most difficulties in later life. As suggested in the introductory chapter, it is not that having a 'difficult' temperament leads directly to offending, but that it may be a factor which interacts with other risk factors to make it more likely that children will behave anti-socially. Conversely, having a positive, happy, outgoing 'easy' temperament acts as a genuine protective factor for children, helping them to overcome adversity and succeed against the odds in difficult circumstances. Apart from their own capacity to cope in difficult circumstances, they are children whom it is easier for parents, teachers and other children to 'like'.

Children's temperaments, unlike many other factors described in this report, are not easily susceptible to outside interventions or support services. But where children are temperamentally 'difficult' it may be especially important to tackle other risk factors in their lives where change can be achieved.

## Promising interventions during the first two years of life

### Baby massage

An area of study that is only beginning to attract research attention is that of baby massage, used as therapy for infants and their parents. The massage, when accompanied by talk, touch and gaze can help to relax the child, but the face-to-face interaction is also a way to enhance parent-infant bonding, to everyone's advantage. Among the most striking research studies are those of Field (1998, 2000) who has worked with newborn babies and young children who are coping with a range of conditions, including exposure to cocaine in the womb (Wheeden, 1993). For example, infants in a neo-natal intensive care unit who were given three 15-minute massages three times a day for ten days showed marked improvements by comparison with a control group, notably in weight gain. Other studies by Field and her colleagues showed improvements for pre-term infants in respect of reductions in cortisol levels, weight gains and reductions in amount of crying. The parents involved reported that their anxiety and depression levels decreased (Field et al, 1986).

It has not yet been established which aspects of the baby massage interventions are the critical beneficial components. Nevertheless, since outcome studies are all indicating enhanced interactions for babies and mothers, this has the potential to provide an inexpensive way of strengthening protective factors and improving children's overall functioning. While this approach shows promise, it is important to note that it has principally been used in hospitals, and its generalisation to primary care and community health settings is not known.

### Front-pack baby carriers

Not all interventions to promote parent-infant bonding and interaction are expensive or require a trained professional to deliver them. A randomised controlled trial in the United States compared a group of mothers given front-pack carriers for their babies with another group who were given conventional baby seat carriers. After three months, mothers using the front pack were more responsive to their babies and after a year the infants were assessed as being significantly more securely attached to their mothers (Anisfield et al, 1990).

### Neonatal Behavioural Assessment Scale

The Neonatal Behavioural Assessment Scale (NBAS) developed in the United States by T. Berry Brazelton has been used in a similar way to encourage strong infant-parent relationships by helping parents to understand their baby's signals and cues. The scale can be used by trained professionals to construct a profile of the baby as

the basis for a care-giving plan. But it has also been used to foster attachment and to help parents admire and understand their babies (for example, by demonstrating their ability to soothe themselves after crying and control their responses to different forms of stimulation). One American study using the NBAS with parents of low birth weight babies found participating mothers were significantly more self-confident four years later than a control group (Rauh et al, 1990). Other studies using NBAS at neonatal intensive care units found that mothers rated their babies as temperamentally easier some months after assessment compared with mothers receiving standard care (Szainberg et al, 1987; Parker et al, 1992). However, not all studies using NBAS have shown positive effects, leading Brazelton to stress the need for a sustained relationship between practitioners and parents rather than relying on a single demonstration (Wolke, 1995).

### Home visiting programmes

In his review of strategies to support families with very young children that have been shown to reduce offending by those children when they reach adolescence, Yoshikawa (1994) has identified three U.S. studies which offered support to families either from birth or during the very earliest years of life:

- the Houston Parent-Child Development Centre (Johnson and Walker, 1987) which offered support at home for mothers and pre-school development opportunities for children from age one
- the Syracuse study, (Lally, Mangione, Honig and Wittner, 1988) offered support by para-professionals at home for parents as well as pre-school and some day care education for children from 0-5 years
- the Yale Child Welfare Project, (Seitz, Rosenbaum and Apfel, 1985) in which a home visitor offered parenting, employment and educational support over the two first years of life

These three programmes all, in due course, produced measurable reductions in offending among participating children compared with similar children whose families did not receive home and educational support. In addition, the results from a long-term study of mothers and infants who were part of the original *Nurse-Family Partnership* programme (see Chapter 1) have shown a range of benefits including reductions in child abuse and neglect compared with control group mothers, and reductions in teenage arrests and convictions compared with control group children (Olds, Hill, Mihalic and O'Brien, 1998). The programme has also been found to be highly cost effective, the savings being brought about primarily in reduced welfare and criminal justice expenditures (Olds, Henderson, Kitman, Eckenrode, Cole and Tatelbaum, 1999). Cost effectiveness issues are considered further in Chapter 6.

## Child Development Programme and Community Mothers' Programme

In Britain and Ireland, the Community Mothers' Programme (Johnson, Howell and Molloy, 1993) uses trained volunteer mothers to give monthly, home-based support to vulnerable mothers with children 0-2 years. When evaluated in Dublin, this scheme was found to be beneficial to both mother and child, with seven year follow-up research showing enhanced parenting skills and maternal self-esteem, with additional benefits to younger siblings whose mothers had taken part in the programme (Johnson, Molloy, Fitzpatrick, Scallon, Rooney, Keegan and Byrne, 2000). The programme is an extension of the Child Development Programme, which has been widely implemented since its inception in 1980. This offers monthly support to new parents, antenatally and for the first year or more after birth. Most visits are undertaken by specially trained health visitors who aim to support and encourage parents in meeting the challenges of child care. Although the programme was not specifically designed to target child abuse, studies found substantially lower levels of child abuse among participating families than were typical for the Health Authority areas where it was introduced (Barker and Anderson, 1988; Barker et al, 1992). The evaluations of both the Community Mothers Programme, and the Child Development Programme have received some criticism on methodological grounds, including the reliability of their comparison data. Nevertheless, both schemes offer promising evidence that health visitors and non-professionals can deliver a family support programme through home visiting that is acceptable and of benefit to families with very young children.

## Parent Adviser Service

Another example of a promising home visiting programme in the UK is the Parent Adviser Services established in disadvantaged areas of London. These work with families of pre-school children whose problems may include relationship and emotional difficulties on the part of the parent(s) and behaviour problems on the part of the child. The aim is to promote better parent-child relationships, and a stronger sense of self-esteem and self-efficacy among parents. Families are usually seen at home by purpose-trained visitors, initially for an hour a week.

An evaluation comparing the experiences of 55 disadvantaged families (most with multiple problems) who were seen by Parent Advisers with 38 similar families who had the 'normal' contact with Health Visitors and other NHS primary health care services produced positive results. Self-esteem among mothers taking part increased over four months, while depression, anxiety and stress declined in contrast to worsening problems among the comparison group. There also appeared to be improvements in their children's behaviour (Davis, Spurr and Cox, 1997; Davis and Spurr, 1998).

An earlier evaluation in East London took place with families of children with learning and physical disabilities and found improvements in the well-being of mothers and children's behaviour compared with randomly-allocated control families. The biggest improvements were found among Bangladeshi families being visited, who tended to be more disadvantaged and have fewer support networks than white families in the study (Davis & Rushton, 1991). The *Parent Adviser* model has since been exported to other countries, notably Australia, and it is being adapted for use with families of older children, including teenagers.

## Prevention and treatment of postnatal depression

A number of studies in the UK have shown that the provision of individual, home-based support, conducted weekly over the first few months after birth, and typically totalling around eight-ten sessions, is effective in speeding up the mother's recovery from postnatal depression (Holden et al, 1989; Cooper et al, 2003). Reassuringly, it appears that this kind of support can be just as effective when delivered by trained health visitors as by experienced psychotherapists (Cooper et al, 2003), making it a practicable intervention. One trial showed the provision of such psychological support to be as effective, in the majority of cases, as antidepressant medication (Appleby et al, 1997). Moreover, the provision of psychological support appeared to be highly acceptable to the mothers concerned.

With experienced health visitors, basic training in these psychological treatments can be achieved in around six sessions, and typically includes the development of counselling skills, as well as training in cognitive-behavioural techniques to assist the mother in the management of infant problems. The benefits of such treatment for the mother-baby relationship and infant development have not been widely studied, although there is some evidence that the rate of behaviour problems in the first eighteen months can be reduced. There is also evidence that depressed mothers experiencing high levels of adversity, who are particularly vulnerable to interaction difficulties, can improve the quality of their relationships with their infants (Murray et al, 2003).

The results of interventions aimed at preventing postnatal depression before it starts have been more disappointing. Several studies have been conducted involving the provision of various kinds of support to mothers who have been identified as being at high risk for the disorder. A major difficulty, particularly with schemes involving group-based interventions, has been poor uptake and retention, but even well-designed programmes delivering individual support have failed to prevent the occurrence of postnatal depression (Stuart, O'Hara & Gorman, 2003).

## Screening and early prevention of language delays

Although controversial within the field of speech and language therapy, the *Wilstaar* programme in the UK has achieved promising results with a specialist home visiting intervention based on screening babies as young as 10 months for signs of slow language development. Although the initial screening is conducted by a Health Visitor, infants assessed in need of support and their parents are visited at least once a month by a trained therapist until the child's language levels are in line with their general development. The emphasis during visits is on helping parents to communicate in circumstances where their babies will be best able to distinguish speech sounds and enjoy the interaction. A study by the programme's originator in Manchester of 122 infants with signs of language-delay found substantial difference in language development at age 3 between those allocated to *Wilstaar* and those in a control group (Ward, 1999). Commentators have suggested that the accuracy of the screening test needs to be further established and that evidence is needed of the programme's effectiveness in other settings (Law & Harris, 2001).

The *It Takes Two to Talk* programme devised by the Canada-based Hanen Centre has shown promise with children aged 2 to 6 as a means of improving parent-child interaction so that the child's communication skills can develop. It is based on eight weekly group sessions and three individual videotaping sessions of up to two hours in the home. Two studies in Canada where pre-school children with developmental delays and their mothers were randomly allocated to take part in the Hanen programme or to a control group have shown positive results in terms of better parent-child communication and interaction as well as improvements in children's language and social skills (Girolametto, 1988; Tannock et al, 1992; Girolametto et al, 1994).

## Parenting programmes

Examples of promising parenting programmes are to be found in the next chapter because they have mostly been evaluated for parents whose children are aged 3 and over. The parenting skills courses devised and evaluated in the United States by Patterson and colleagues (1982) and Webster-Stratton (2001) are, nevertheless, considered suitable for parents of children aged two and over who are beginning to display behavioural difficulties. In Britain, a controlled evaluation of a parenting support programme by Sutton (1992) demonstrated that parents of small children could be helped to manage them equally well whether the support was given at home, in small groups or by telephone. Further research (Sutton, 1995) confirmed the effectiveness of the telephone method of parent support and training. The beneficial effects were still evident at 15 months follow up.

## Conclusions

When children growing up in disadvantaged circumstances are able to form a strong, affectionate bond of attachment with their parents and other caregivers it serves as an important protective factor, attenuating their exposure to risk. As they grow older, a positive attitude towards school and to the teachers and other adults who play a significant part in their lives can help to reinforce social bonding – always assuming that the adults concerned are setting clear standards and modelling positive social behaviour themselves. Children and young people who feel ‘attached’ in that way – whether to their family, school or the wider community – are less likely to risk breaking the bonds by behaving anti-socially and breaking the rules (Hawkins & Catalano, 1992).

This chapter has focused on the very start of the protective process, describing the barriers from birth onwards that can impede successful bonding with mothers, fathers and then other family members. While a child’s own temperament and inherited characteristics may play some part, there are many other challenges during infancy where the right support services can help to promote healthy attachment and ensure that any impairment is short-lived. These range from ‘primary’ preventive services, like front-pack carriers and baby massage to promote parent-infant bonding, to screening and more specialised interventions for poor maternal mental health, including post-natal depression. As seen, screening during infancy may also assist early intervention to prevent speech and language delays by improving communication between mother and baby. Regular home visiting is, likewise, an effective means of supporting vulnerable or deprived families in the first two years, especially the intensive *Nurse-Family Partnership* model developed and evaluated by Olds and colleagues in the United States.

Where bonds of affection are absent or become distorted, children may then be exposed to risk through harsh parental treatment, cruelty or neglect. The effective part that certain types of parenting programme have demonstrated in changing parental behaviour and reducing those risks is considered in the next chapter.



## Chapter 3: Three to eight years

**Frances Gardner, Eleanor Lane & Judy Hutchings**

By the age of three, children's severe behaviour problems are relatively stable and easy to identify. Partly as a consequence, there are also a considerable number of interventions for this age group whose effectiveness has been convincingly demonstrated through evaluation. This chapter focuses on interventions that teach parenting skills as a way of preventing and treating children's problem behaviour. This is because a substantial weight of evidence has accumulated in the past 20 years from randomised controlled trials (level 5 in the Scientific Methods Scale described in the Introduction) showing their effectiveness.

Many, but not all of these interventions are 'cognitive-behavioural' in orientation, and have become more widely used in the UK. Increasing knowledge concerning school and child risk factors has also led to the development and evaluation of effective programmes targeting staff in pre-school settings, teachers and children themselves. However, there are relatively few trials of non-cognitive-behavioural interventions for this age group, and the balance of the chapter reflects this.

### Environmental factors

The environmental risk factors described in previous chapters continue to apply to this age group. The association between socio-economic disadvantage and conduct problems, as well as subsequent delinquency and adult mental health problems, has long been recognised (e.g. Farrington, 1995; Kazdin & Wassell, 1999). Research, such as that reported in *Parenting in Poor Environments* (Ghate & Hazel, 2002), indicates that major life stressors such as poverty, unemployment, overcrowding and illness, can have a negative impact on parenting and are associated with many childhood problems, including conduct disorders (Rutter, 1978).

### School experiences

For children in the age group covered by this chapter, experience of the outside world expands to include their compulsory attendance at school. For those already exhibiting behaviour problems, negative academic and social experiences in school contribute further to the development of conduct problems. Anti-social children lack the social skills to maintain friendships and risk being isolated from peer groups (Coie, 1990; Kazdin, 1995). They are more likely to interpret social cues as provocative and to respond aggressively to benign situations. Rejection by peers is often a prelude to being drawn towards a group of similarly anti-social peers, further increasing the risk of later involvement in drug misuse and offending (Dishion et al, 1991).



There is, in addition, evidence that teaching style and the characteristics and ethos of a particular school can contribute to problem behaviour, or contribute to reducing it. Poor teacher discipline strategies where a large amount of negative attention is afforded to 'misbehaviour' and where children are rarely praised for good work and conduct are associated with classroom disruption, delinquency and poor academic performance (Rutter et al, 1975). Behaviour problems also lead to poor relations with teachers as the child becomes labelled as a 'troublemaker' and receives less encouragement and more criticism and disciplinary action (Campbell & Ewing, 1990).

This may result in exclusion from school. Exclusions from primary school are relatively rare in the UK, but in the United States Webster-Stratton (2001) reported that 50 per cent of the conduct-disordered children attending her clinics had been excluded from three or more classes by the age of 8. It is also worth drawing attention to the potential for excluded children who are referred to special pupil referral units to be drawn still deeper into anti-social behaviour as a result of enforced association with children who have similar problems (Dishion et al, 1999).

## Family factors

Parents' present or past involvement in offending and/or substance misuse has been shown to place children at increased risk of becoming involved in anti-social behaviour themselves (Kazdin, 1987). Aside from any genetic component, parents' involvement in crime or drugs may be an indicator of negative, anti-social attitudes and a compromised ability to provide their children with appropriate supervision and care (Carr, 1999). Parental mental health problems, particularly depression, are also commonly associated with child problems (Alpern & Lyons-Ruth, 1993; Hutchings, 1996). A Department of Health report *Children's Needs – Parenting Capacity* (1999) described evidence of how parental mental illness, problem alcohol and drug use, as well as domestic violence, all impact on children's development. While the particular focus of the report was on child abuse, it is increasingly understood that the same factors pose risks for children's subsequent mental health and involvement in offending. There is also abundant evidence that many children learn and establish problem behaviours because parents lack key parenting skills, use them inconsistently (Patterson, 1982), or fail to use them at the appropriate times (Gardner et al, 1999).

As already seen in this report, harsh parenting, physical punishment, lax supervision and inconsistent use of discipline play a significant role in the development and maintenance of child behaviour problems (Farrington, 1996; Rutter et al, 1998; Campbell, 1995; Gardner, 1989; 1992). One review by Leach (1998) concluded that

the more physical punishment a child was subjected to at a given measurement point, the greater the likelihood that their level of anti-social behaviour would escalate. By contrast, the use of positive parenting skills (such as frequent joint activities, monitoring, structuring the child's time and constructive discipline strategies) appears to be protective and has been associated with improvements in serious behaviour problems over time that are independent of other risk factors (DeGarmo & Forgatch, 2002; Gardner et al, 1999; Gardner et al 2003; Gardner & Burton, 2003).

## Individual factors

Boys are more likely to develop aggressive behaviour problems than girls and this gender difference tends to be more marked among school-aged children than among pre-schoolers (Loeber et al, 2000). Moreover, children with conduct problems at a young age often show symptoms of attention-deficit hyperactivity disorder (ADHD). This is marked by three main characteristics:

- physical over-activity, greater than that found in most children
- short attention span
- impulsiveness

The longitudinal studies of Moffitt (1990) have shown that early ADHD is not, on its own, a risk factor for later involvement in crime. But when it is accompanied by aggressive behaviour, the two together carry substantial risk for later, persistent offending (Rutter et al, 1998). Both ADHD and conduct disorders are also associated with delay in language and cognitive development (see Chapter 2), and this tends to become increasingly evident as further difficulties emerge in school, including poor literacy skills.

The available evidence suggests a modest genetic contribution to conduct problems, and a substantial genetic component in ADHD (Rutter et al, 1998). These problems can best be viewed as an interaction between genetic and antenatal factors, the child's own characteristics, and external factors that include parenting and the environment in which the child is growing up.

## Effective interventions

The emphasis in this section is on programmes that have been rigorously evaluated, using randomised controlled trials (RCTs), with adequate sample sizes, and relevant and valid measures of problem behaviour. The evidence for the effectiveness of these programmes has, in many cases, been strengthened by multiple replications of the findings and by follow-up research, showing that promising results were maintained over a period of months or years.

### Parenting skills programmes

Parenting programmes target known risk factors for anti-social behaviour, especially positive parenting skills and adult relationship skills. Most of those that have, to date, been evaluated in RCTs and yielded positive results are grounded in social learning and cognitive behavioural theory. It is a matter of regret that there are other types of parenting programme – some of them widely sold and used – that have never been evaluated with the same degree of rigour.

Cognitive behavioural programmes are based on the principle that parenting (and other) behaviours are skills that can be learned and practised. This is achieved, in group or individual settings, through discussion, role play, modelling, practising new skills at home, and, in some programmes, analysing video material with other parents (see chapter 5 on Implementation). Parents set goals for themselves and their children, and they learn skills for play and building positive relationships. They go on to generate and practise skills for preventing problem behaviour, for example, by setting clear expectations, using well-timed encouragement and reward, and applying consistent and gentle consequences for problem behaviour.

Some interventions address additional risk factors, by helping parents to deal with children's temperamental difficulties, including ADHD (Sonuga-Barke et al, 2001). Other programmes aim to address wider family and environmental risk factors, including social support, parental depression, marital relationship problems and conflict. But even where this has not been the case, some evaluation studies have identified beneficial effects of parenting intervention on wider family problems, particularly depression (for example, Hutchings et al, 2002, Webster-Stratton & Hammond, 1997).

## Effectiveness in different settings

Most of the best-evaluated parenting skills programmes have been carried out in the home, in clinics, or in parenting groups. It is, however, important to note that regardless of setting, there is a growing weight of evidence to suggest that structured programmes need to be sensitively and flexibly applied to meet parents' needs in different service settings and locations. For example, Webster-Stratton's *Incredible Years* programmes were originally developed in clinics, but have been successfully used in community settings with parents whose children attend the US Government's Head Start pre-school enrichment programme. Webster-Stratton's programmes have also been positively evaluated in trials in the UK, including in the NHS, the voluntary sector, in inner city primary schools, and in 'Sure Start' settings. As a result, there is encouraging evidence of their effectiveness with low-income families and with different minority ethnic groups in the UK and US (Gross et al, 2003; Reid & Webster-Stratton, 2002; Scott et al, 2000).

The favourable views of parents concerning their experience of the programme, their child's behaviour and their sense of confidence as a parent are one feature of these evaluations. But they receive objective ratification from the perspective of independent observers, who in most studies have assessed changes in parent-child interaction and children's behaviour in the home.

Some parenting programmes have employed innovative delivery models that have attempted to embed the intervention closely into existing family support services. For example, Sanders and colleagues in Australia (2000) and J. Patterson and colleagues in Oxford (2002) trained staff to deliver programmes in primary care. Hutchings and colleagues in North Wales have trained staff as part of the *Sure Start* early years programme for whole neighbourhoods, as well as training health visitors to use effective interventions in their routine practice (Lane & Hutchings, 2002). In America, an RCT is currently underway evaluating a version of *The Incredible Years* in 'Head Start' nurseries in the USA that uses home-based computers (Webster-Stratton & Taylor et al 2001).

In Australia, Sanders' *Triple P* (Positive Parenting Programme; see below) is currently being tested using different types of service delivery adjusted to varying levels of need and family preferences. This includes provision of universal parenting information through television (Sanders et al, 2000), and a targeted intervention using booklets (Sanders et al, 1998). These methods offer the promise of making a greater public health impact, by reaching larger numbers of families, especially those in rural areas.

## Three key examples

This section provides a more detailed description of three of the best-evaluated and most widely used parenting programmes in the United States, Australia and the UK. They are:

- *The Incredible Years* (Webster-Stratton et al)
- 'Triple P' – the Positive Parenting Programme (Sanders et al)
- Parent Management Training based on *Living With Children* (Patterson et al)

### *The Incredible Years*

This programme has expanded over the years to include modules for children and teachers as well as the original parenting programme devised by Webster-Stratton and her colleagues in Seattle, USA. The programmes are based on 'videotape modelling' where parents watch video clips that show parents using a range of strategies to deal with everyday situations with their child. Parents are encouraged to discuss and role-play different ways that they might have handled the interaction more effectively. This enhances parents' confidence in their own ideas and their ability to analyse situations and select an appropriate parenting strategy.

The group setting is important in enabling parents to problem-solve effectively, and in helping them to feel less isolated in their parental role. Trained group leaders work with parents within the collaborative, non-didactic model (Webster-Stratton & Herbert, 1994) that is a central feature of the programme. The provision of transport, day care, meals and flexible course times takes account of families' circumstances and as a result, achieves high participation rates in very disadvantaged communities.

The 'basic' programme emphasises parenting skills known to promote children's social competence and reduce behaviour problems, and teaches parents about the importance of play. It also covers the use of effective praise and incentives, setting limits and non-violent strategies for managing misbehaviour such as taking no notice or sending the child to a quiet place for 'time out'. The 'advanced' programme consists of a further 8-10 weeks of collaborative group work, where parents learn skills for dealing with anger, coping with stress, and partner relationships.

As noted above, *The Incredible Years* parenting programmes have achieved positive outcomes in randomised controlled trials in several different countries, and in diverse inner-city settings. A successful trial, helping children with anti-social behaviour, has recently been completed in Oxford in the voluntary sector (Gardner & Burton, 2003), and larger scale 'dissemination' trials are underway in Norway and in

North Wales in 11 Sure Start centres. In the UK, the programme has also been widely used in health, education and voluntary sector settings, for example in London, Essex, Manchester, Liverpool and Sheffield. A number of professionals from different disciplines have been approved by Webster-Stratton as certified trainers and mentors, and training courses are available. The systems that exist for achieving dependable implementation through accreditation and continuing professional support are considered further in Chapter 5.

It is also worth noting evidence that *The Incredible Years* programmes are acceptable and effective among families from ethnic minorities. In the US, Reid et al (2003) in a study of 370 Caucasian and 264 African-American, Hispanic and (South-East) Asian low-income families, found that improvements in child and parent outcomes were equally high in each ethnic group. Moreover, attendance levels and parent satisfaction were somewhat higher in minority ethnic participants, although initial enrolment levels were around 15 per cent lower. In the UK, two South London trials of *The Incredible Years* included a substantial number of black and minority ethnic families, and the programme was equally effective for these families (Scott et al, 2000). The success of these interventions with diverse groups makes theoretical sense given the collaborative approach, encouraging parents to set their own goals for their family and respecting different viewpoints. The videotapes depict families from a diverse range of backgrounds (Gross et al, 2003).

### **Triple P – The Positive Parenting Programme**

A distinctive feature of the *Triple P* programme, devised in Australia by Sanders and colleagues, is the five different levels of intervention of increasing strength that it offers. These range from universal services that any parent might find useful to targeted, clinical interventions for the families of children and adolescents with serious behavioural problems. The five levels are a practical acknowledgment that parents have differing needs and desires concerning the type, intensity and mode of intervention they are likely to find most helpful.

The aim at each level is to provide parents with a minimally sufficient level of advice and support. For example, Level 1 includes media strategies to provide information, raise community awareness of parenting issues, and to turn the process of learning about child behaviour into a normal, straightforward activity for parents. It has been offered and tested as a peak-time television programme for parents in New Zealand (Sanders et al, 2000).

At higher levels, interventions become more intensive as the difficulties become more severe. Thus, Level 4 is for children with identified behaviour problems,

combining information with active parenting skills training, and applying these to a broad range of behaviours and settings. Delivery formats include a ten-session programme in the clinic or home, an eight-session group programme, or a self-help parenting workbook. Level 5 is for families experiencing behaviour problems complicated by additional family problems. It extends the intervention to include marital communication, mood and stress management.

The programme is distinguished by a number of strategies for ensuring it is faithfully implemented ('programme fidelity'). Practitioners are licensed after taking part in standardised training and have to adhere to a quality assurance process. 'Protocol adherence checklists' guide practitioners through the content of each session, and they are encouraged to join a peer support network to review cases and prepare for accreditation.

There is good evidence of effectiveness from randomised controlled trials in Australia that have evaluated *Triple P* preventive and clinical interventions, in various delivery formats (Sanders et al, 2000). Positive outcomes include improvements in child behaviour, parenting practices and parents' sense of competence. Among delivery methods, parenting groups appear to be the most effective. No trials have yet been completed in Europe or North America. However, several *Triple P* training courses have been held in Scotland (as part of the 'Starting Well' project) and England in recent years. The programme is being implemented and evaluated in two areas of Glasgow, where a programme of intensive home-based health visiting is well established and, more recently, group programmes have been introduced. *Triple P* is also being used in Germany, Switzerland, Hong Kong and Singapore. In South Carolina, USA, a state-wide randomised 'dissemination trial' is underway of the multi-level intervention.

### **Parent management training based on *Living with Children***

*Living with Children*, a manual devised by Gerald Patterson (1976), and colleagues at the Oregon Social Learning Center, is a long-established cognitive-behavioural programme for training parents in child management skills. It has had a far-reaching influence on the development of most other cognitive-behavioural parenting programmes in different countries, applying the principles that were described at the start of this section (for example, Herbert, 1981; Sutton 1995; Fast Track, 2000). Patterson's own programmes based on this approach have been evaluated, and have been shown to be effective with children referred for serious conduct problems between the ages of 3-12 (Patterson, 1974; 1982).



More recent research has evaluated an adaptation of the programme for mothers of boys aged 6-9 experiencing parental separation or divorce. Follow-up studies over 30 months showed enduring improvements in coercive discipline, positive parenting and boys' non-compliance (Martinez & Forgatch, 2001). This programme is currently being implemented in Norway as part of a nationwide programme to tackle problems of crime. The goal is to have trained therapists in every municipality to intervene at the earliest stages of child conduct problems. A dissemination trial is underway to evaluate its implementation.

There are currently no formal training and accreditation systems available for professionals wanting to apply the Oregon Social Learning Center's approach in the UK. However, *Living with Children* has exerted a major influence over the basic training of professionals in health and education, especially psychologists, for more than two decades. Similar programmes are used in the UK, and in some cases have been shown to produce good outcomes (for example, Sutton, 1992, 1999; 2004: see Chapter 2). See too Herbert and Wookey (2004) in the same tradition.

## Child and school-based programmes

Children at highest risk often exhibit behavioural problems in school as well as at home. This suggests that preventive initiatives targeting both settings may be especially successful with primary school-age children, creating opportunities to reinforce messages about acceptable behaviour, while also improving thinking and problem-solving skills. It is, therefore, not surprising to find that some preventive programmes originally devised as 'parenting' initiatives have expanded into work with children (in and out of the classroom) and teachers.

## Interpersonal and cognitive skills programmes

For example, the 25-year old ICPS ('I Can Problem Solve') programme in the United States aims to prevent conduct problems by helping children aged 3 to 12 to learn interpersonal and cognitive skills while encouraging them to understand and respect the feelings of others. Adapted from an approach first devised for disadvantaged African-American parents, it is delivered in three different versions, according to the ages of the children taking part. A longitudinal evaluation following the progress of participants from pre-school to junior school age has shown positive effects on behaviour as well as cognitive skills compared with control groups (Shure & Spivak, 1982; Shure, 1993).



## Extensions of *The Incredible Years*

Methods and principles devised for *The Incredible Years* parenting programme have been adapted for use with children and as a 'classroom management' programme for teachers. The latter is normally delivered in six one-day training sessions, spread over 6 months. Teachers are trained in the use of effective strategies for dealing with misbehaviour, building positive relationships with difficult children, strengthening children's social skills, and collaborative communication with parents. In addition, teachers learn to prevent peer rejection by helping aggressive children to learn appropriate problem-solving strategies, and by helping their peers to respond appropriately to signs of aggression (Webster-Stratton et al, 2002).

*Dinosaur School*, Webster-Stratton's programme for children aged 4-8 adopts a similar approach to promoting children's competencies and reducing problem behaviour. Videotape modelling is used to foster discussion, and there is an emphasis on problem-solving. A distinctive feature is the use of life-size 'child' puppets by the practitioner or teacher to model appropriate behaviour and thinking processes for the children. The programme content is organised to dovetail with the content of the parent training program and covers issues such as learning school rules; making friends, understanding and detecting feelings; problem-solving and doing your best at school. Like the teacher and parent programmes, it has been evaluated, with positive results, as a small-group clinical intervention and a whole-class preventative programme. (Webster-Stratton, 2001; Webster-Stratton & Hammond, 1997).

## Evidence of long-term benefits

Although some of the most effective preventive programmes with parents and children under 8 have been able to demonstrate improvements in behaviour being sustained over a period of years, relatively few have followed children for long enough to observe what positive effects, if any, can be observed in the teenage years and early adulthood when sustained anti-social behaviour might otherwise lead to offending, including violent crime.

## Seattle Social Development Project

The *Seattle Social Development Programme* is one ambitious example where training to improve the social competence and thinking skills of elementary school pupils, was combined with a parenting skills programme and training in proactive classroom management skills for their teachers. The programme grew into a six-year initiative with components whose focus changed as children grew older. For example, the emphasis of the parenting and social skills programmes altered

from promoting positive behaviour to ways of reducing family conflict and enabling children to resist negative peer pressure (Hawkins et al, 1991, 1992; O'Donnell et al, 1995).

A six-year follow-up study, when the participants were 18, yielded some encouraging results. Young people who had received the full intervention from the start of elementary school were significantly less likely than a control group to report violent criminal behaviour, heavy drinking, multiple sexual partners, pregnancy or causing pregnancy. The group of participants also showed more attachment to school, less school misbehaviour and greater self-reported achievement. However, there was no significant difference in the reported use of cannabis or heavy smoking. The Seattle researchers have highlighted the practice implications of their finding that a 'late intervention' programme provided for children in grades 5 and 6 and their families did not produce the significant, long-term effects achieved by the full intervention (Hawkins et al, 1999).

### High/Scope Perry Pre-School Program

Probably the best-known of all preventive programmes that have been evaluated, the *High/Scope Perry Pre-school Program*, includes longitudinal studies extending to the present day that suggest a quality pre-school experience can have positive effects on children's lives extending well into adulthood. The *High/Scope* programme, first offered to disadvantaged pre-schoolers in Michigan in the 1960s, is based on an approach known as 'child-initiated learning'. In a process known as 'plan – do – review' children are encouraged to plan their play activities and to talk about what they did towards the end of the session. Staff are trained to observe the way that children play so they can reinforce 'key learning experiences' as they arise.

In the early 1960s, 120 children aged 3 and 4 were matched for similarities in pairs before one from each pair was randomly allocated to take part in the pre-school enrichment programme and the other became part of the control group. The continuing High/Scope research programme found that by the age of 27, the pre-school group were more likely to have completed their education, to be employed, and to be homeowners, and less likely (in the case of girls) to become pregnant in their teens and to be arrested for drug and other offences (Schweinhart et al, 1993). A cost benefit analysis further estimated that for every \$1 invested in the original programme, an estimated \$7 had been saved for the taxpayer in real terms (Barnett, 1996. See Chapter 6).

The High/Scope researchers have related these good results to the curriculum and the encouragement that it gave to children's sense of initiative, responsibility for their own actions, curiosity, independence and self-confidence. Subsequently, a small, randomised study of 68 children from poor families compared those attending a High/Scope nursery with matched groups of children who took part in a highly-tutored 'direct instruction' classroom or a more conventional nursery programme of child-initiated play. At age 23 children who had attended the High Scope and the conventional nursery had required less special education for emotional impairment and had only a third of the arrests recorded for the direct instruction group (Schweinhart et al, 1997). Those who had attended the High/Scope nursery also had a better record of voting in national elections and lower levels of self-reported misconduct. On the other hand, those who attended the conventional nursery had needed fewer years of compensatory education and reported higher earnings. These are relatively small studies on which to base policy, but it is impressive that positive effects were identified many years later and related to attendance at nurseries based on child-led activities.

Training and accreditation in Britain are provided by High/Scope UK. The organisation uses a 'cascade' model where the national organisation employs consultants, who train the trainers. Accredited trainers can then provide a nine-day curriculum implementation course. More than 20,000 UK early years practitioners are accredited to use the curriculum. Specialist training based on the approach is also offered to childminders, to special needs practitioners and directly to parents.

## Other interventions

### Dietary interventions

Although these have been controversial for some time, a recent trial in Southampton appeared to show adverse effects of artificial food colourings and preservatives on the behaviour of 277 hyperactive or atopic three-year olds drawn from the general population (Bateman et al, 2004). After withdrawal of these additives from the diet, hyperactive behaviour was reduced. Children were given dietary challenges in the form of a drink containing colourings and preservatives and a placebo drink. The parents, blind as to which drink was being given, reported more hyperactive behaviour while their children received the drink with additives than when they had the placebo drink. This was a carefully conducted trial and has considerable implications for public health intervention, for example policies on drinks permitted in schools.

## Conclusions

There are a growing number of well-tested programmes for preventing and treating problem behaviour in 3 to 8 year olds. These appear to be effective and adaptable for an impressive diversity of children and families, service delivery methods and settings, and are well used in the UK. Training is fairly well set up in the UK, but is still a long way from being widely available. Families, family service and education providers, as potential 'customers' for these programmes, deserve better access to accurate information about the effectiveness of different approaches to inform their choice. There is also an implied need for more of the programmes currently offered to young children and their parents without a 'research warrant' to be rigorously researched so that their effectiveness can be assessed.

## Chapter 4: Nine to 13 years

*Eleanor Lane, Frances Gardner, Judy Hutchings and Brian Jacobs*

As children grow older their social networks become wider and more complex, encompassing the individual, peers, family, school and community. Behaviour difficulties can develop from, and be maintained by, negative interactions anywhere within this social network and lead to serious adolescent problems of substance use, violence and delinquency. Research has shown that behaviour difficulties of older children are more serious, less responsive to intervention and are more likely to become chronic. Some children in this 9 to 13 age group will embark on criminal careers that, their early start suggests, are more likely to lead to chronic, serious or violent offending. Appropriate preventive interventions for this age group will, therefore include more intensive 'secondary' and 'tertiary' services (see Introduction) as well as less targeted, universal services

### Environmental factors

#### Community and school influences

Previous chapters have already mentioned the connections between neighbourhood disadvantage and patterns of offending. For example, the longitudinal Cambridge Study in Delinquent Development of 400 boys growing up in South London found that low income, low socio-economic status and large family size (more than four children) were all risk factors for chronic offending and anti-social personality at age 32 (Farrington & West, 1993). In America, Sampson, Raudenbush and Earls (1997) showed that in disorganised neighbourhoods, a lack of 'informal' social controls, such as adults prepared to condemn or prevent public anti-social behaviour by young people, meant that offending was not deterred, or in some cases even noticed. A self-report survey of more than 14,000 secondary school students in the UK found that anti-social behaviour and attitudes were associated with living in disorganised, neglected neighbourhoods where young people believed drugs could easily be obtained. (Beinart et al, 2002)

#### The contribution of schools

Although the social backgrounds and characteristics of their pupil intake are the main reason why individual schools have higher or lower proportions of students who commit crime, there is evidence that certain school characteristics may, themselves, affect the level of anti-social behaviour. For example, low expectations for students' behaviour and rules that are poorly defined and inconsistently applied can all contribute to a disorganised environment where anti-social behaviour is

compounded. Conversely, schools that are well organised, including strong leadership from the head teacher and governors, and good morale among the staff, foster good relations with their students and that apply clear, consistent policies on bullying and other anti-social behaviour exert a protective influence (Anderson et al, 2001).

### **Low achievement**

Children's difficulties in expressing themselves verbally, coupled with a short attention span, can readily lead to children's becoming disenchanted with basic school activities such as learning to read, write and count. Once children begin to fail, or to believe that they are falling markedly behind in primary school in achievements that they discover are highly rated at school, it is not easy to re-establish their confidence. This is a particularly demanding and exhausting task for teachers. The children may, meanwhile, find there are greater satisfactions to be won by gaining attention through difficult behaviour, or, as they grow older, by truancy. Longitudinal studies show that children who are performing poorly in school from late junior school onwards are more likely to turn to crime than those who are performing adequately or well. Lack of commitment to school, including truancy, is also an important risk factor (Anderson et al, 2001)

### **Rejection by the peer group**

Anti-social children are at high risk of becoming isolated from pro-social peer groups (Coie, 1990; Kazdin, 1995; Marshall & Watt, 1999). These children often respond aggressively in problem situations. Their difficulty in coming up with solutions to problems means that those they offer tend to be violent ones. When such behaviour is directed towards peers it leads to rejection and fewer opportunities to learn appropriate friendship skills. In the United States, Miller-Johnson et al (1997) followed children from age six to ten finding that aggressive behaviour and rejection by peers at age six predicted later self-reported offending.

Peer rejection often leads to children joining deviant peer groups which provide further training in deviant behaviour and increases the risk of drug abuse and anti-social behaviour (Dishion et al, 1991; Taylor and Biglan, 1998). For example, Vitaro and colleagues (1997) found that moderately disruptive boys at age 11 were more likely to be offenders at 13 if their friends at age 11 were disruptive.

### **Family and parenting factors**

By the age of 9 or 10 children begin to rate their peers as being of equal or greater importance than their parents (Reid et al, 1989). However, family-related factors

continue to play an important role in the development and maintenance of problem behaviours. For example, in findings from the study of South London boys, Farrington (2003) reported that lax supervision of a child was an important risk factor for both chronic offending and anti-social personality at age 32. Weight is added to this finding by the work of Wilson (1980, 1987) in the West Midlands who compared the offending rates of children living in either the inner city or the suburbs according to whether the degree of parental control exercised over them was 'strict', 'intermediate' or 'lax'. She found that in inner city neighbourhoods the offending rate of boys from 'lax' families was over two and a half times that of those from 'strict' families.

### Inter-generational continuity

As noted in previous chapters, anti-social parents tend to have anti-social children. In the longitudinal study of South London boys, for example, having a parent with criminal convictions was the best single predictor that boys aged 10 would have anti-social personality by the age of 32. The factors at play here include modelling – through which the developing child imitates and may identify with an anti-social parent. Modelling may well be one of the underlying mechanisms that maintain Life Course Persistent offending (Farrington, 2000b).

### Effective interventions

Reviews of support services for preventing crime and anti-social behaviour among young people aged 9 to 14 have identified a number of effective family and school-based programmes being used in Britain, although most were first developed and evaluated in the United States (Woolfenden et al, 2002; Berthet and Jacobs, 2002). As in the previous chapter, these are programmes that fit the definition of 'What works' using the Scientific Methods Scale described in the Introduction. This chapter also describes a number of programmes available in the UK that can be defined as 'Promising' using the same criteria.

### Parenting skills programmes

Group-based parenting programmes that help parents to acquire new skills, including non-violent strategies for managing unacceptable, anti-social behaviour are relevant to the 9-14 age group as well younger children. For example, *The Incredible Years* described in Chapter 3 has been extended to include 'advanced' and 'school' programmes which are designed for parents of children up to 10 and 12 years respectively (Webster-Stratton et al, 2001). In Wales, the original 'basic' parenting programme has also been used successfully with parents of children up to

12 referred by Child and Adolescent Mental Health Services (CAMHS). The small-group therapeutic 'Dinosaur School' programme (also described in Chapter 3) has likewise been used with CAMHS-referred children aged between 7 and 11 who exhibit pervasive conduct problems and/or ADHD symptoms. A series of small-scale doctoral research projects have demonstrated good outcomes (Hutchings et al 2003a; 2003b).

*The Triple P – Positive Parenting Programme*, described in the previous chapter also includes interventions of increasing strength from birth to age 16 and many of the evaluations have been carried out with this age group (Sanders, 1999).

## Family therapy

Although *The Incredible Years*, *Triple P* and other group-based parenting programmes have demonstrated their effectiveness in preventing childhood anti-social behaviour, therapeutic work with individual families may be helpful for families who need a more intensive, individualised programme. Not surprisingly, many of the practice elements needed to bring about long-term change in individual family therapy sessions are the same as those for group-based programmes (Hutchings et al 2002, 2004). These programmes work with multiple members of a family, including parent and child training, to improve family interaction and communication. By targeting multiple risk factors for anti-social behaviour, they have provided effective treatment for families of adolescents with conduct disorder.

## Multi-Systemic Therapy

Multi-Systemic Therapy (MST) is an intensive support programme for young people aged 10 to 17 and their families (Henggeler, 1999). Rigorous evaluation and replication in clinical and community settings in the United States mark it out as a particularly effective intervention for adolescents with conduct disorders, including violent and chronic young offenders. (The quality of supporting evidence means it has been included in the 'Blueprint' series of model programmes in America for preventing violence. See Chapter 5)

MST targets multiple factors that can contribute to anti-social behaviour and so intervenes at all levels using treatment techniques most likely to:

- Promote disengagement from deviant peers
- Build stronger bonds to conventional groups such as the family and school
- Enhance family management skills such as monitoring and discipline
- Develop greater social and academic competence in the adolescent



Individualised treatment plans are designed in collaboration with family members. Therapy techniques are used to change the systems supporting the behaviour problems. Identified barriers to effective parenting such as parental mental health problems or drug abuse are addressed. MST also helps family members to build a social support network and uses the strengths of this social network to facilitate positive change in the youth's behaviour. MST is typically provided in the home, school and other community locations over a period of about four months. The programme is detailed in a treatment manual (Henggeler et al, 1998) and training involves five days of intensive training followed by quarterly 'booster sessions'.

MST has well-documented short- and long-term (2 to 5 years) outcomes with adolescents presenting serious anti-social behaviour and their families (Henggeler, 1999) and further studies are underway. Evaluations have demonstrated reduced rates of criminal offending and out-of-home placements, extensive improvements in family functioning and decreased youth mental health problems. The MST approach has also been shown to be successful at engaging and retaining families in treatment.

Recently introduced to the UK, Multi-systemic Therapy is currently delivered in Cambridge by members of a Youth Offending Team (YOT) and a new (2003) programme is being launched at the Brandon Centre for Counselling and Psychotherapy for Young People in London. This will use MST with at least 100 young offenders as part of a YOT and will include an RCT evaluation to compare MST with other interventions already available. The team of psychologists are being trained by MST Services in America.

## Functional Family Therapy

Functional Family Therapy (FFT) is an intervention programme for young people aged 11 to 18. The programme is at a 'secondary' preventive level and at a more intensive, 'tertiary' level with young people who are found to be involved in serious, chronic criminal behaviour.

Risk factors are targeted in three treatment phases that build towards a process of positive change.

*Phase 1* focuses on reducing negative communication and hopelessness and increasing the motivation of family members to participate in change

*Phase 2* focuses on developing and implementing individualised behaviour change plans

*Phase 3* focuses on helping families to generalise positive changes to other problems or situations they encounter

Model adherence and outcomes from both the therapist and family perspective are monitored through the frequent completion of questionnaires and progress notes during the course of treatment.

Evidence of programme success has come from studies conducted over 25 years in the USA involving, mainly, young offenders aged 13 to 18 years. Significant improvements have been shown in family interaction (e.g. Alexander and Parsons, 1973; 1980) as well as short- and long-term (up to five years) reductions in re-offending (e.g Barton et al, 1985; Gordon et al, 1995). There is also evidence that this programme can reduce future delinquency among younger siblings (Alexander, 1973). In Britain, an interactive CD-ROM version of the programme called *Parenting Wisely* (Gordon, 2003) is increasingly used by Youth Offending Teams in England with parents of young offenders who are subject to Parenting Orders made by the courts (Ghate & Ramella, 2002). An unpublished evaluation of *Parenting Wisely* in the United States involving 80 young offenders compared those whose parents were mandated to use the programme by the courts with a control group given a 'normal' disposal (usually probation). It found significant improvements in the behaviour of the offenders whose parents took part in the programme after six months, compared with no change for those whose parents were not involved (Gordon & Kacir, 1998).

### **Multidimensional Treatment Foster Care**

In some circumstances, such as when family relationships have broken down and young people are already being 'looked after' by social services, it may be appropriate to offer family support through carers other than the child's own parents. One example, evaluated in the United States, is Multidimensional Treatment Foster Care (MTFC) for anti-social adolescents in trouble with the law. It provides highly structured therapeutic care in foster families to decrease delinquent behaviour and increase participation in pro-social activities. The programme recruits, trains and supervises foster families in the community to provide participating young people with close supervision, fair and consistent limits, predictable consequences for rule-breaking, a supportive relationship with an adult and an environment that reduces exposure to delinquent peers (Chamberlain and Mihalic, 1998).

A personal behaviour programme is developed by the case manager and the MTFC parents. The average length of the programme is about seven months. Foster parents report daily on the young person's progress and attend weekly meetings. The young person's family also receives therapy which focuses on problem solving and communication skills, methods for de-escalating family conflict and how to use

the same structured supervision used in the foster home to increase the likelihood of success when the young person returns home.

Studies of MTFC with 12 to 18 year old juvenile offenders, demonstrated that during a 12 month follow-up, MTFC participants had significantly fewer arrests and days incarcerated compared to a group who had participated in a residential care group programme (Chamberlain, 1990, Chamberlain & Reid, 1998). A Department of Health grant has recently enabled treatment foster care programmes to be developed in health and social services in several areas of the UK including the Wirral, Surrey, Dorset and London.

## The Intensive Treatment Programme

The *Intensive Treatment Programme* is a family therapy intervention developed and evaluated in North Wales (Hutchings et al, 2004). It includes a component where the treatment family spend three five-hour sessions in a 'home situation' research unit where the parents learn observation skills, practise new parenting strategies, and agree goals and home assignments. The programme incorporates strategies for enhancing relationships and improving discipline, as well as many other components known to enhance the effectiveness of parenting programmes. Parents are able to view video-taped recordings of their own interactions with their child. Parents work out, and then rehearse, alternative management strategies.

A randomised controlled study (Hutchings et al, 2002) compared the intensive treatment with a standard CAMHS treatment where parents were given behaviour management advice. The results showed significant long-term (four years) gains for the intensive treatment group in terms of improved child behaviour and maternal mental health, while initial improvements made by the standard treatment group were not maintained (Hutchings et al, 2004).

## School-based programmes

Effective school-based methods for preventing anti-social behaviour range from programmes for improving students' reasoning and interpersonal skills to training for teachers in classroom management and 'whole school' approaches designed to change the institutional ethos. Some schools in the UK have also hosted parenting programmes.

A review of international research for children aged 8-12 (Berthet and Jacobs, 2002) found a number of rigorously evaluated programmes that targeted anti-social behaviour through schools and had achieved a significant reduction in aggression. Encouragingly, the results were especially positive among children with the worst

problems whether they had taken part in a programme for all the students in their class or school or one that was more narrowly targeted. There were also modest improvements on wider measures of conduct that persisted during the follow-up periods. For example, an Oregon Social Learning Center programme called LIFT (*Linking the Interests of Families and Teachers*) targeted children and parents in primary schools serving high crime neighbourhoods. The positive results included a marked reduction in inattention, impulsivity and hyperactivity as well as delays in the onset of delinquency (Reid et al 1999).

### The *PATHS* curriculum

One example of a reasoning and personal skills programme currently used in British schools is Promoting Alternative Thinking Strategies (*PATHS*). This is implemented by teachers (after a three-day training workshop) with whole classes of primary school children over a period of five years (Year 2 to Year 6). The *PATHS* curriculum provides teachers and counsellors with a systematic procedure for enhancing social competence and understanding in children, focusing on self-control, emotional understanding, positive self-esteem, relationships, problem-solving skills and creative self-expression. *PATHS* is designed to be used as an integral part of the school curriculum but also includes out-of-school activities to promote generalisation beyond the classroom (Greenberg et al, 1998).

Randomised controlled trials of *PATHS* in the United States involving children with special needs as well as those in mainstream education have shown improvements in reasoning and thinking skills and reductions in aggression and depression (Greenberg, Kusche and Mihalic, 1998). A comparison study involving 56 primary schools in the US, found that by the end of the first grade (age 7) in the schools where *PATHS* was operating there was improved social adaptation marked by:

- Lower peer aggression, scored by peer ratings
- Lower peer hyperactivity, scored by peer ratings
- Lower teacher ratings of disruptive behaviour
- Improved classroom atmosphere, assessed by independent observers

An evaluation of *PATHS* in six West Lothian schools in Scotland also showed improvements in behaviour in five of the six schools (Davids, 2003). Teachers were reported to be enthusiastic, commenting that *PATHS* fitted well into the school curriculum and contributed towards performance indicators. There are plans for the programme to be rolled-out to the whole of West Lothian. The Flintshire Primary Care Service for Children in Wales is also using and evaluating *PATHS* in local schools

as one intervention in their primary care model (Appleton and Hammond-Rowley, 2000). They currently provide a two-day training workshop and are working with Greenberg, the programme's originator, to develop a *PATHS* training model in the UK.

## Project Charlie

Project Charlie (*'Chemical Abuse Resolution Lies in Education'*) is a drugs education programme evaluated in the UK, based on 'life skills' programmes in the United States that help children to resist peer pressure to smoke tobacco, drink alcohol and experiment with illegal substances. Among comparable American programmes, Botvin et al, (1995) found that students age 11 to 14 had lower levels of cannabis, alcohol and tobacco use, compared with a control group, six years after participating in a programme that combined health information about drugs with personal and social skills training.

Project Charlie has been used with primary school children aged 8 to 11 in London and Newcastle-upon-Tyne. Its multiple components include strategies to enhance social competence, self-awareness and self-esteem, and so strengthen children's ability to resist personal and peer pressure to begin using drugs. Evaluation of the programme in three Hackney schools (including in one school where an RCT design was employed with a sample of 140) found that after being taught the Project Charlie curriculum for one year, children's decision making and ability to resist negative peer pressure were significantly better than for control children. There was little difference in attitude to drugs or intention to use drugs at this age. However, a four-year follow up of the earliest Hackney participants found that these children were significantly less likely to smoke or use drugs than a comparison group of 13 and 14 year olds in their class (Hurry and McGurk, 1997; Hurry & Lloyd, 1997).

## Reading Recovery

This 'tutoring' programme addresses the risk factor of low achievement in primary school, by helping children who are in the bottom fifth of their class with their reading skills. Originally developed in New Zealand, it is thought to be the most extensively implemented and evaluated programme for children with reading difficulties anywhere (Hurry, 1996; Pinnell et al, 1994; Shanahan & Barr, 1995). An estimated 5,000 children in Britain aged 6 and 7 take part in the programme each year. Children participate in individual tuition sessions with purpose-trained staff on a daily basis for up to 20 weeks. The aim is to raise their reading skills to the average level for their class. Sessions last half an hour and may include re-reading books as well as reading new books, letter identification, word making/breaking and story writing.

An evaluation of *Reading Recovery* in Britain showed that children taking part had doubled their reading progress by the end of the programme compared with a control group (Sylva & Hurry, 1995). Follow-up research when the children were aged 10 found that children whose reading skills had been in the bottom 10 per cent when they joined the programme were still reading better than their opposite numbers in the control group. However, this was not true of children whose skills had not been quite so poor. The researchers suggested that booster sessions during Key Stage 2 in junior school would help to address this apparent slippage in the benefits obtained.

## The Bullying Prevention Programme

This programme is an example of a 'whole school' approach where change is achieved by altering the institutional ethos of the school. It aims to reduce victim/bullying problems among primary and secondary school children. It has a multi-level approach. All students participate in most aspects of the programme, while pupils identified as bullying others or as targets of bullying receive additional individual interventions (Olweus, et al, 1999). Students complete an anonymous bully/victim questionnaire that enables an assessment to be made of the extent of bullying in the school.

School staff are largely responsible for introducing and implementing the programme. They take part in a half- or one-day training session and then participate in regular teacher discussion groups during the initial stages of the programme. The programme includes regular class meetings with pupils to talk about bullying and peer relations as well as individual interventions with children who bully and children who are targets of bullying.

An evaluation in Norway, where it was developed, found the frequency with which the pupils reported bullying or being bullied was reduced by 50 per cent following the use of this programme. These results applied to both boys and girls from a sample of 2,500 primary and secondary school pupils. Improvements were also seen in the reduction of anti-social behaviour in general, and of theft, vandalism, and truancy during the following two years (Olweus, et al, 1999).

Evaluations in the UK, US and Germany have produced more modest but still positive findings. An evaluation in Sheffield involved 6,000 pupils aged 8-16 years in 16 primary and 7 secondary schools (Smith & Sharp, 1994). The reduction in the numbers of pupils being bullied averaged 17 per cent in the primary schools and 5 per cent in the secondary schools. However, the report of bullying behaviour was found to decrease with age. Smith and Sharp also noted that greater reductions in

bullying, up to 40 per cent could be achieved when playground measures were implemented.

The cost of the programme is relatively low, around £150 per school to purchase the questionnaire and computer software to assess bullying at the school plus about £45 per teacher to cover the cost of classroom materials.

### **The Big Brothers & Big Sisters mentoring programme**

Although widely used in Britain, the United States and elsewhere, mentoring schemes – where young people in difficulties are supported by an adult or older peer in trying to make changes in their lives – have an equivocal track record in terms of evaluation. Their structure and content, including whether good behaviour is rewarded and negative behaviour carries consequences, appears to be crucial (Hawkins et al, 1995). However, a large-scale evaluation of the long-established Big Brothers and Big Sisters of America in the past ten years has yielded positive results.

More than 900 young people aged 10 to 16 from lone parent families were randomly assigned to the mentoring programme or to a waiting list control group. Most of the young people were from disadvantaged families and more than half were from black and minority ethnic groups. Participants had four-hour meetings with their mentors at least three times a month for a year. After 18 months, the evaluators found that the participants in the programme were 46 per cent less likely to have started using drugs during the study period than their controls, 27 per cent less likely to have started using alcohol and 52 per cent less likely to have truanted from school. They also gained more confidence than their controls, were less aggressive and showed modest improvements in their grades at school. Relationships with parents and peers also showed improvement (Tierney et al, 1995; Tierney & Grossman, 1998).

*A Big Brothers & Sisters of the United Kingdom* organisation was established in the mid-1990s, providing mentoring for children and young people aged 6 to 16 from lone parent families. It has programmes running in Bristol, Birmingham, London, Edinburgh and Glasgow.

## **Conclusions**

A wide range of preventive programmes suitable for 9 to 14-year olds are supported by good evidence concerning their promise or effectiveness. They include parenting programmes, family therapy and work with individual children in therapeutic groups as well as individual tutoring programmes, whole class and whole school approaches.

A number of the programmes either have their own non-standard training for practitioners or use standard training provided by the programme developers which does not include ongoing technical support or consultation. Some are developing systems for providing standardised training in the UK and support for programme delivery. *The Incredible Years*, *PATHS* and the *High/Scope* early years programme (described in Chapter 3) are examples. If these programmes are to be adopted in the UK and delivered to the same standard as those used in the evaluations, UK based training and support is crucial. The next chapter considers the issues of replication and implementation in more detail.



## Chapter 5: Making evidence-based interventions work

*Judy Hutchings, Frances Gardner and Eleanor Lane*

Serious anti-social behaviour among children is a significant problem. In the UK and United States it has been estimated that between 4 and 10 per cent of children exhibit persistent and pervasive behavioural problems that meet the criteria for a diagnosis of conduct disorder (Rutter et al, 1975; Kazdin, 1987; Institute of Medicine, 1989). A more recent British survey concluded that 7.4 per cent of boys aged 5 to 15 and 3.2 per cent of girls were conduct disordered (Meltzer et al, 2000). Another study of children living in disadvantaged neighbourhoods puts the proportion nearer to 20 per cent (Attride-Stirling et al, 2000a)

Up to 40 per cent of children diagnosed with conduct disorders go on to develop serious psychosocial problems in adulthood, including criminal convictions, drug misuse and violent behaviour (Coid, 2003). Thus, although many anti-social children do not grow into anti-social adults, there is still a high price to be paid for failing to take preventive action or intervene early. The more so because chronic behavioural difficulties among a minority of young children can become more resistant to preventive services and treatment as time passes (Kazdin, 1993).

A cautionary calculation by Scott and colleagues (2001a) – using data from a longitudinal study of inner London children – has demonstrated how childhood anti-social behaviour leads to quantifiable costs to society. Thus, by the time they were 27 years old, children who at age 10 had displayed no signs of anti-social behaviour were estimated to have cost the state £7,400 in relation to crime, special education, social security, health, foster/residential care and relationship breakdown. The equivalent figure for those with conduct problems at the age of 10 was £24,300, increasing to £70,000 for those with diagnosed, chronic conduct disorders.

Previous chapters have described some of the more effective or promising interventions and services that can be used to help children and their families from an early age. These are age-appropriate programmes whose promise lies in the evidence that:

- They succeed in reducing children's exposure to known risk factors for adolescent and adult anti-social behaviour
- They are 'protective' in circumstances where children are exposed to multiple risk factors.

Despite this, and the well-recognised costs of untreated conduct disorders, Kazdin and Kendall (1998) in the United States found that only 10 per cent of children with such difficulties actually receive a service and of those that do, fewer than half receive evidence based interventions (Chambless and Hollon, 1998). The situation is similar in Britain, where it has been estimated that fewer than one in five children with significant behaviour problems are seen by specialist services (Attride-Stirling et al, 2000b).

One potential barrier to using behavioural family interventions, often cited by concerned policy makers and service commissioners, is the conundrum that family interventions are hard to implement because those who most need the service are the hardest to reach. Research showing that the risk factors for children's problem behaviour are also risk factors for poor treatment outcomes appeared to support this view (e.g. Dumas & Wahler, 1983). However, Patterson & Forgatch (1995) have demonstrated that, although many risk factors are correlated with conduct disorder, these are mediated through parenting behaviours. Service providers who have addressed the issues of engaging these very disadvantaged families and making the service accessible to them fail to find any association between disadvantage and poor outcome (Reid and Webster-Stratton 2001). In the United States, many of the children from low income families who qualify for the Head Start pre-school education programme are exposed to multiple risk factors for subsequent conduct problems and later offending. Yet studies examining the efficacy of *The Incredible Years* programme with Head Start families, (Reid and Webster-Stratton, 2001; Hartman et al, 2002) have found no adverse connection between parents' socio-economic status or ethnicity on uptake, satisfaction or outcomes.

According to Hartman and colleagues (2002):

*"...as mothers are given opportunities to acquire further positive parenting skills, levels of economic disadvantage become less important in predicting treatment success or failure." (p396).*

With the help of the high-quality, systematic reviews that are now available (Sherman et al, 2002; Webster-Stratton & Taylor, 2001; Mihalic et al 2002; Barlow et al, 2002) service providers should be making more use of evidence-based interventions than they do. Yet even when they do, a good working knowledge of 'what's promising' or 'what works' is insufficient on its own to bring about change. Whether working with individual children and families or across whole neighbourhoods or communities, the issue of how programmes are implemented is absolutely crucial. Results achieved elsewhere, no matter how impressive, cannot be replicated if the effective ingredients of their success are not properly reproduced.

Whether it is the result of weak supervision on the ground or interference from above, 'implementation failure' arising from dilution or redefinition of the programme is the all-too-common reason why previously effective programmes disappoint in new settings. This chapter uses the example of behavioural interventions with families to review the main components that are associated with successful delivery and faithful implementation.

## Key components of effective behavioural family interventions

As previous chapters have noted, more than 30 years of research into behavioural family interventions have provided strong evidence that they are effective for children with high levels of disruptive behaviour. There is evidence of positive long-term outcomes and their effectiveness as crime prevention measures (Taylor & Biglan, 1998). Research has also identified certain essential components in effective interventions for the prevention or treatment of behaviour problems. This understanding can usefully be applied to the question of why some interventions produce better outcomes than others.

In terms of necessary components, it has been established that:

- New parenting skills must be actively rehearsed (Bandura, 1977; Knapp and Deluty, 1989). Approaches such as videotape feedback, role play and rehearsal are very effective in improving parent behaviours (Webster-Stratton, 1998b; Hutchings et al, 2002; Hutchings et al, 2004).
- Parenting programmes must teach principles rather than prescribed techniques. When parents learn behavioural principles, they acquire the tools to decide what works best for them and to respond positively and appropriately when new situations arise (McMahon et al, 1981; Hutchings et al, 2004). This also enables them to set and achieve their own goals (Webster-Stratton & Hancock, 1998).
- Since parenting practices are involved in both the establishment and maintenance of problematic child behaviour it is essential that parents practise new parenting behaviours at home (Patterson, 1982; Webster-Stratton & Hancock, 1998).
- Programmes need to include both (non-violent) sanctions for negative behaviour as well as strategies to build positive relationships through play and praise. Work that helps parents to encourage positive behaviour through play and praise, but does not help them to deal with problem behaviour can show early improvements but these positive changes may not be maintained (Wiltz & Patterson, 1974; Hobbs et al, 1990).

- Difficulties in the relationships between adults in the family cannot be ignored. For example, Dadds et al (1987) found that although a behavioural family intervention benefited parents and their children, a ‘partner support’ programme was needed to achieve sustained improvements in families where the parents had relationship difficulties. *The Incredible Years* ‘advanced’ course specifically targets adult relationship difficulties (Webster-Stratton, 1994).

## Common factors in effective programmes

Across many different fields, including medicine, psychiatry and education, there are common factors that help to explain the positive and similar results obtained from theoretically different interventions. According to Lambert (1992) common factors include:

- *The client(s)*: including their unique strengths, beliefs, values, skills, experiences, ability to enlist the support and help of others, circumstances, potential for change and desired changes that are already happening in their lives. Effective treatment mobilises the client’s resources and works in a way that is compatible with the client’s beliefs and values.
- *The client-practitioner relationship*: including the client’s perception of the empathy, acceptance and warmth of the therapist, the classic counselling skills (Patterson, 1984). This ‘therapeutic alliance’ is enhanced by:
  - accepting the client’s goals at face value instead of challenging them or altering them to fit a specific theoretical model;
  - tailoring therapeutic tasks and suggestions to the client instead of requiring the client to conform to the therapist’s chosen model and beliefs;
  - collaborating with clients instead of dictating to them; and
  - exploring material that is relevant to the client.
- *Client expectations of a positive outcome*: This is the client’s hope and expectancy of change as a result of taking part in a programme. This is harnessed when practitioners:
  - convey an attitude of hope and possibility without minimising the problem or the pain that accompanies it; and
  - encourage clients to focus on present and future possibilities instead of past problems

*The Parent Adviser* model, described in Chapter 2, is a good example of the way that common factors can be incorporated into a parenting intervention. Davis and Spurr (1998) trained health visitors to understand the processes of helping and to use the qualities and communication skills necessary to facilitate this counselling process with parents. Their model drew on the literature from previous studies of psychotherapy and counselling (Rogers, 1959; Egan, 1990; Kelly, 1991) and included elements derived from studies of child development and parenting. The service they devised focuses on the parent-practitioner relationship as fundamental in determining the eventual outcomes. It stresses that this relationship is one of partnership, and mutual respect and teaches practitioners how this can be achieved through skills such as attending and listening. The aim is to involve parents from the start, and to value and use their expertise so that they take credit for positive changes and feel confident that they can tackle future problems (Davis & Spurr, 1998).

### Combining common and specific factors

Given the importance of specific as well as common factors it is not surprising that the delivery of effective behavioural family interventions is demanding. Highly-skilled therapists, experienced in both social learning theory and collaborative leader skills, are needed to deliver effective programmes. Programmes led by trainees, who are learning the intervention, tend to be less successful (Taylor & Biglan, 1998). It is also clear that the effectiveness of a programme depends on the degree to which it takes account of common factors. Webster-Stratton's series of *Incredible Years* programmes, already much-referred to in this report, provides another good example of the way that specific and common factors can be combined. The programmes ensure that 'client' risk factors are addressed in a way that minimises their impact on outcomes. They are also delivered in a way designed to ensure an effective, collaborative, client-practitioner relationship (Webster-Stratton & Herbert, 1994).

By collaborating with clients and tailoring the programme delivery to their needs and circumstances, Webster-Stratton has achieved good outcomes with families who, in other studies, are at greatest risk of drop-out or failure. Her starting point for engaging these 'hard to reach' families is that non-attendance in parenting skills programmes and other interventions is a problem in the programme not in the participants.

As she puts it:

*“Such families have been described as unmotivated, resistant, unreliable, disengaged, chaotic, in denial, disorganized, uncaring, dysfunctional and unlikely candidates for this kind of treatment—in short unreachable. However, these families might well describe traditional clinic-based programs as ‘unreachable’. Clinical programs may be too far away from home, too expensive, insensitive, distant, inflexible in terms of scheduling and content, foreign in terms of language (literally or figuratively), blaming or critical of their lifestyle. A cost benefit analysis would, in all likelihood, reveal that the costs to these clients of receiving treatment far outweigh the potential benefits even though they do genuinely want to do what is best for their children. Perhaps this population has been “unreachable” not because of their own characteristics, but because of the characteristics of the interventions they have been offered.”*

(Webster-Stratton 1998a, p184)

When this approach is taken, factors such as social and economic disadvantage and maternal mental health are not strongly related to levels of engagement or positive outcomes with the programme (Hartman et al, 2003; Baydar et al, 2003). Although working with a very disadvantaged community in Seattle, Webster-Stratton was able to demonstrate higher levels of take up, retention and better long-term outcomes than most other programmes in this field with 88 per cent of high-risk, enrolled ‘Head Start’ families being retained in the programme and completing more than two-thirds of the sessions (Webster-Stratton 1998a). Key components for successful implementation of *The Incredible Years* can be summarised as follows:

Specific intervention components:

- Relationship enhancing and discipline strategies
- Emphasis on parents learning ‘principles’ rather than prescriptions for becoming effective problem-solvers
- Videotaped vignettes prompt discussion and problem-solving
- Role play rehearsal of new skills
- Homework with reading and practice assignments
- Parents are encouraged to keep records of their practice at home, and to set their own weekly goals
- Parents receive weekly feedback from group leaders

## Common factors

- Client Factors
  - Involving administrators, staff and parents in programme planning
  - Making the programme accessible and feasible by providing transport, meals, child care and accessible locations. (Providing meals and child care also increases partner participation)
  - Providing incentives to help with programme monitoring and evaluation, including a small payment for completing pre-course measures and a higher payment for post-course measures (provided parents have attended two-thirds of the sessions). The programme also includes surprise celebrations and raffles
  - Encouraging every parent's participation. The programme is advertised as a universal programme, offered to all Head Start families, but high risk families are specially targeted and encouraged to come. Parents are visited prior to the course and parents who have done the programme are encouraged to call on reluctant parents
  - Allowing for different levels of literacy. The programme relies on behavioural rehearsal during the group sessions, and the video tapes can be loaned to parents to watch at their leisure. Parents are encouraged to bring partners, relatives or friends to the group, so if one person has literacy difficulties, a friend can offer to keep some written records. The midweek phone call from the course leader also helps in this regard
- Client-practitioner relationship factors
  - The programme uses a collaborative model, based on a reciprocal relationship that assumes the leaders and parents both have expertise. Leaders solicit parents' ideas and parents participate in goal setting and are encouraged to adapt the intervention to meet their own individual needs
  - Parents are empowered to find their own solutions. Research shows that this reduces attrition and increases motivation and commitment
  - The programme encourages participating parents to help each other, reducing isolation and finding new sources of support. This includes making 'buddy calls' to one another during the course
  - Parents are helped with ideas for building support networks outside the group and encouraged to involve other family members in mutual support. This echoes the 'questions to alert practitioners to parents' needs in a diversity of cultures'. (Forehand and Kotchik, 1996)



- Group leaders phone all parents each week throughout the course, and contact parents who miss sessions as soon as possible afterwards
- Expectations
  - Course leaders use disclosure about their own parenting experiences, and that of parents who have attended past programmes to help parents see their own behaviour as ‘normal’
  - Leaders are trained to hold positive but realistic expectations for parents’ progress. They use previous success stories to encourage parents and offer them positive reinforcement
  - Special efforts are made to contact parents who seem unhappy with the programme and to resolve problems. The programme views disengagement as the leaders’, not the clients’, problem

This combination of common and specific therapy factors in *The Incredible Years* appears essential to achieving good outcomes in either prevention or treatment of children’s behaviour problems. It accounts for the very positive outcomes achieved when the programme has been transported and trialled in the UK (Scott et al, 2001b; Patterson et al, 2002; Hutchings and Webster-Stratton, 2004). It is also clear that the UK programmes have succeeded because they faithfully replicated the essential ingredients of the original programme. Scott is still analysing data regarding implementation fidelity from his (2001b) study, but it would appear that variations in the results from different groups are directly related to the extent to which the course leader adhered to the programme protocol.

## Achieving implementation fidelity

Knowledge that some programmes offer effective interventions leads to the next important question for programme developers: how to get the programmes delivered effectively in ‘real life’ service settings. The message here is that they won’t be unless careful attention is paid to the quality and fidelity of implementation. Even in clinical settings it is clear that attempts to replicate positive results often fail because a programme has been ‘adapted’ in ways that prevent it from achieving the same outcomes (Mihalic et al, 2002).

One helpful tool now available to policymakers, service planners and practitioners preparing to implement evidence-based prevention strategies is the growing database of model ‘Blueprint’ programmes assembled by The Center for the Study of Violence Prevention at the University of Colorado. This centre has been funded by the Office of Juvenile Justice and Delinquency Prevention of the U.S. Government



and acts as a resource to help planners choose strongly-evaluated programmes and to implement them with a high degree of integrity (Mihalic et al, 2002). It reports evidence from statistical meta-analyses of evaluated programmes which suggests that the more a programme developer is involved in the implementation of the programme, the more faithfully and effectively the programme will be delivered (Lipsey, 1999; Mihalic et al, 2002).

The database specifically focuses on the prevention of adolescent and adult violence and, following a review of more than 600 prevention programmes, only eleven to date have been awarded 'Blueprint' model status. Those that have been selected are supported by evidence of long-term beneficial effects in reducing violence, independent replication and – last but not least – a detailed implementation protocol and training procedures. 'Blueprint' model programmes described in this report are:

- the *Nurse-Family Partnership Programme* (originally the Elmira Project) in Chapters 1 and 2
- *The Incredible Years* series of programmes for parents, teachers and children in Chapters 3 and 4
- *Multidimensional Treatment Foster Care, Functional Family Therapy, Multisystemic Therapy (MST), the PATHS curriculum, the Bullying Prevention Programme and the Big Brothers & Sisters Programme* in Chapter 4

The Blueprint series defines 'implementation fidelity' as the degree of fit between the original programme and its application in a given service setting. Five main components are judged necessary:

- *Adherence*: assessing whether the programme is being delivered as it was designed, with all the core components, to the appropriate population, with staff trained to the appropriate standard, with the right protocols, techniques and materials and in the prescribed locations or contexts.
- *Exposure*: whether the treatment 'dose' (e.g. the number of parenting sessions in a course, and their frequency and length) matches the original programme.
- *Quality of programme delivery*: the manner of delivery, the skill of leaders in using the techniques, or methods, their enthusiasm, preparedness and attitude.
- *Participant responsiveness*: the extent to which the participant is involved in the activities and content of the programme.
- *Programme differentiation*: the extent to which all of the unique features of the programmes are identifiable and present, e.g. role-play practice and homework assignments.

Although information about implementation is vital if effective programmes are to be faithfully replicated, it is surprising how often researchers and programme developers have neglected to provide this. One review of 500 prevention studies found that only 5 per cent provided any information on implementation (Durlak, 1997). This shortcoming in the research literature is all the more regrettable now that a number of studies show a positive connection between measures of fidelity and the level of success (e.g. Domitrovich and Greenberg 2000; Henggler et al, 1997). A recent study of delinquency prevention in American schools found that the quality of many school-based prevention activities was poor and that they were not being implemented with sufficient strength to produce the desired, positive outcomes (Gottfredson et al, 2000). Conversely, the 'Blueprint' data on the *Bullying Prevention Programme* – evaluated in Norway and the UK – shows that the largest reductions in both bully and victim problems in schools had been achieved in those classes that had participated most actively and extensively in delivering the programme and implemented all three of the classroom components to a greater extent than those schools reporting smaller changes (Olweus and Alasker 1991).

The High/Scope Educational Foundation in the United States and its licensed UK organisation seeks to ensure fidelity to its pre-school curriculum (Chapter 3) through centrally-trained consultants who 'cascade' the model through 'training of trainers' programmes in the UK and other countries and curriculum courses provided by the resulting 'endorsed trainers'. This is also a component of the 'Triple P' parenting programme whose practitioners are licensed after taking part in approved training and encouraged to use protocol adherence checklists, join a peer support network and prepare for accreditation.

*The Incredible Years* programme addresses implementation fidelity through detailed leader manuals, videotapes, books and materials. A basic three-day parent group leader training is delivered by approved trainers and mentors and teaches both the common and specific therapy factors that contribute to the programme. Following training, there are opportunities for ongoing consultation with the parent organisation in Seattle and a performance-based leader certification process, which includes an assessment of the leader's performance from a video-taped recording of a full session of the programme. Group leaders need to run two groups and provide both video and other evidence of programme fidelity. Webster-Stratton has also trained a number of 'certified leaders' in the US, the UK and Norway to act as mentors who can train and support new group leaders. A network of parent group trainers and mentors has been established in the UK in London, Essex, Manchester, Oxford and Wales<sup>2</sup>.

2 Based in North Wales, the first-named author is, at the present time, the only certified therapeutic 'Dinosaur School' programme mentor and the only certified classroom management programme leader in the UK.

## Conclusion

Of all programmes designed to address the prevention and reduction of delinquency and violence in adolescence, behavioural parenting programmes, delivered to the parents of children up to the age of 8 years, are probably the most successful. However not all programmes are equally effective and there is good evidence that effective programmes require both specific and common therapy factors and highly skilled leaders. When this happens, it is possible to engage high-risk families, who often fail in other interventions and whose children are at greatest risk of long-term problems, and enable them to achieve good outcomes. Once an agency selects an evidence-based programme they then have a responsibility to deliver it with 'fidelity'.

At present many families of children with conduct problems and diagnosable disorders in both Britain and the United States do not get support through evidence-based services. Researchers and clinicians have a responsibility to promote these evidence-based services to policy makers and service planners – and to ensure that they are faithfully implemented.

# Chapter 6: Economic costs and benefits of early intervention

*Brandon Welsh and David Farrington*

This chapter summarises what is known about the economic costs and benefits of programmes for children under 13 that have been designed to prevent later anti-social behaviour and offending. The main focus is on ‘real-life’ evaluations of interventions where the researchers used an experimental or quasi-experimental design (‘effective’ and ‘promising’ programmes as described in the Introduction). It also examines economic evidence from cost-effectiveness studies using mathematical modeling techniques such as simulation models. Recent research by the authors (Welsh, 2001, 2003; Welsh & Farrington, 2000; Welsh et al, 2001) has provided the primary source for the studies reviewed here.

## Economic analysis

An economic analysis can be described as a tool that allows choices to be made between alternative uses of resources or alternative distributions of services (Knapp, 1997, p. 11). Many criteria are used in economic analysis. The most common of these is ‘efficiency’ (achieving maximum outcomes from minimum inputs), which is the focus here. The specific focus on economic efficiency, however, is not meant to imply that early intervention programmes should only be continued if the benefits outweigh the costs. There are many important non-economic criteria on which these programmes should be judged as well (for example, on access to community resources and services).

Of the two main techniques of economic analysis – ‘cost-benefit’ and ‘cost-effectiveness’ analysis – only cost-benefit analysis enables an assessment of both costs and benefits. A cost-benefit analysis is a step-by-step process that follows a standard set of procedures: (1) define the scope of the analysis; (2) obtain estimates of programme effects; (3) estimate the monetary value of costs and benefits; (4) calculate present value and assess profitability; (5) describe the distribution of costs and benefits (an assessment of who gains and who loses, e.g. programme participant, government/taxpayer, crime victim); and (6) conduct sensitivity analyses (Barnett, 1993, pp. 143-148).

## Economic findings of cost-benefit studies

Three early intervention programmes that have been rigorously evaluated for long enough to determine their effect on delinquency have also performed a cost-benefit analysis. They are

- The Nurse-Family Partnership ('the Elmira Project')
- Perry Pre-school Project
- The Participate and Learn Skills (PALS) Programme

All three produced desirable cost-benefit ratios, meaning that programme benefits outweighed programme costs.

### The Nurse-Family Partnership Project

The Nurse-Family Partnership Project (previously known as the Prenatal/Early Infancy Project (PEIP)) was carried out in the semi-rural community of Elmira, New York, in the late 1970s to early 1980s (see Chapters 1 and 2). It was designed with three broad objectives: (1) to improve the outcomes of pregnancy; (2) to improve the quality of care that parents provide to their children (and their children's subsequent health and development); and (3) to improve the mother's own personal life-course development (Olds et al, 1993, p. 158). The original programme enrolled 400 women prior to their 30th week of pregnancy. They were recruited if they had no previous live births and were under 19 years of age, unmarried, or from a low socio-economic status background. Analyses in a randomised controlled trial focused on comparisons between those who were visited by a nurse during pregnancy and infancy (treatment group) and those who did not receive home visits (control group). As noted in Chapter 1, the treatment group showed impressive results across a range of indicators, compared to the control group. These included the important finding that, at age 15, children of the higher risk mothers in the treatment group reported fewer arrests than their control counterparts (Olds et al, 1998).

A cost-benefit analysis of the programme (Olds et al, 1993), two years after it ended or when the children were four years of age, found that, for the higher-risk mothers who took part, programme benefits slightly outweighed costs (a cost-benefit ratio of 1.06). For the whole sample including lower as well as higher risk mothers the programme costs exceeded the benefits (an undesirable cost-benefit ratio of 0.51).

The average cost per family of the two year programme was \$3,246 (in 1980 dollars) for the sample as a whole and \$3,133 for the higher risk sample. Of the savings to

public spending achieved with the higher risk sample (\$3,313 per family), the largest portion (56 per cent) was attributed to reductions in Aid For Dependent Children (AFDC) benefits. Reductions in Food Stamps accounted for 26 per cent of the savings; Medicaid, 11 per cent; and increases in tax revenue, 5 per cent. Fewer cases of child abuse and neglect were found among the treatment group compared to the control group, but the reduced need for child protection services accounted for only 3 per cent of the total savings to the public purse (approximately \$100 per family).

An external cost-benefit analysis of the Elmira programme was carried out by Karoly et al (1998) using data from the most recent evaluation point: 13 years after the intervention. This measured programme effects on childrens' delinquency and mothers' life course development and found a favourable cost-benefit ratio of 4.06 for the higher risk sample, but still an unfavourable ratio of 0.62 for the lower risk sample.<sup>3</sup>) However, the analysis was, again, limited to savings to government – in the form of reduced criminal justice costs and health care and social service usage costs and increased income taxes. When Aos et al (2001) subsequently performed a cost-benefit analysis of the project that only considered crime reduction benefits and focused on the higher risk sample they still found that savings to the criminal justice system and victims of crime covered the programme costs, achieving a positive cost-benefit ratio of 1.54.

### The High/Scope Perry Pre-school Project

The Perry Pre-school project (see also Chapter 3) started in 1962 in Ypsilanti, Michigan. Its principal hypothesis was that 'good pre-school programs can help children in poverty make a better start in their transition from home to community and thereby set more of them on paths to becoming economically self-sufficient, socially responsible adults' (Schweinhart et al, 1993, p. 3). Families were recruited if they had low socio-economic status (SES) and their children showed low intellectual performance. The main intervention strategy involved high quality, active learning pre-school programming administered by professional teachers for two years. Staff carried out weekly home visits to provide parents with educational information and encourage them to take an active role in their child's education.

By the age of 27, treatment group participants showed a number of benefits compared to the control group, across a range of social functioning indicators. For example, they had fewer police arrests, with the average number of lifetime arrests

<sup>3</sup> Karoly et al (1998) reported on analyses of higher (unmarried and low SES) and lower (two-parent or higher SES) risk samples, whereas Olds et al (1993) reported on analyses of the higher risk sample and the sample as a whole (higher plus lower risk).

being 50 per cent lower for treatment participants (2.3) compared to the control group (4.6). Some of the other statistically significant benefits realised by the treatment compared to the control group included higher monthly earnings (27 per cent versus 7 per cent earning \$2,000 or more per month) and a higher level of schooling completed (71 per cent versus 54 per cent completing 12th grade or higher) (Schweinhart et al, 1993, p. xv). A cost-benefit analysis (Barnett, 1993) at age 27, found that for every dollar spent on the project over seven dollars was saved to taxpayers and crime victims (a cost-benefit ratio of 7.16).

Total costs of the programme were estimated at \$12,356 (in 1992 dollars) per programme group participant. These were made up of basic operating costs (for example, instruction, administration, overhead) and capital costs (for example, rental of classrooms). Total programme benefits were estimated at \$88,433 per treatment group participant. Savings from reduced crime (to the criminal justice system and victims of crime) accounted for the majority (80 per cent) of them. Other benefits produced by the programme included higher educational output and reduced schooling costs, revenue generated from taxes on increased earnings, and reduced use of social services. Two earlier cost-benefit analyses of Perry, when the participants were aged 15 and 19, also showed that the programme was a sound investment of taxpayer money.

An external cost-benefit analysis of the programme by Karoly et al (1998), when subjects were age 27, found that the programme produced a desirable cost-benefit ratio; however, the ratio of 2.09 was substantially less than the 7.16 calculated by Barnett (1993). This was because Karoly et al (1998) examined benefits only from the perspective of government. Savings to crime victims, which accounted for the majority of the pre-school programme's benefits in the analysis by Barnett (1993), were not included. Aos et al's (2001) cost-benefit analysis of Perry, also at age-27, found that criminal justice system and crime victim benefits covered programme costs, for a cost-benefit ratio of 1.50. It is important to note that crime victim costs were limited to tangible costs (e.g., property loss). Once again, the exclusion of non-crime benefits reduced the measured economic efficiency of the High/Scope Perry programme.

### **The Participate and Learn Skills (PALS) Programme**

The *PALS* programme was an out-of-school clubs programme implemented in a public housing complex in Ottawa, Canada, in the early 1980s. It has not been replicated in the UK to date, although its findings appear highly relevant to holiday activity schemes and youth work in disadvantaged areas. It had two main objectives: (1) to advance the participating children toward higher non-school, skill



development levels (for example, skills in sporting and cultural activities); and (2) to integrate children from the public housing community into the larger community (Jones & Offord, 1989, p. 739).

Children were distributed evenly between boys and girls and between the ages of five and 15 years at both sites. Approximately half of the families at both sites relied on some form of social assistance for income and the other half were considered 'working poor'. The strongest programme effect was found for juvenile delinquency. During the 32 months of the programme, the monthly average number of juveniles charged by the police was 80 per cent less (0.2 vs. 1.0) at the experimental site compared to the control site. This statistically significant effect was somewhat reduced during the 16 months after the programme finished: 0.5 juveniles were charged per month at the experimental site compared to 1.1 at the control site.

A cost-benefit analysis calculated a desirable cost-benefit ratio of 2.55. Programme costs (operational and research) and immediate benefits for the intervention and follow-up periods were measured, using 1983 Canadian dollars (C\$). The calculation of monetary benefits included only those areas where significant differences were observed between the experimental and control complexes: fewer police charges against juveniles, reduced private security reports, and reduced calls for fire services. Over the course of 48 months (the intervention plus the follow-up period), programme costs totaled C\$258,694 and benefits were estimated at C\$659,058. The city housing authority reaped the largest share of the benefits (84 per cent or C\$552,118). These benefits were produced by the reduced demand for private security services in the experimental housing complex relative to the control complex. The next largest portion of the total benefits from the programme were realised by the city fire department (13 per cent or C\$88,416). Monetary benefits accruing to the youth liaison section of the city police were relatively small (2 per cent or C\$11,758).

## Other cost-benefit studies

Aos et al (2001) also applied their cost-benefit model to two other early intervention programmes (the Syracuse University Family Development project of Lally et al, 1988; and the Seattle Social Development project of Hawkins et al, 1999: See chapters 2 and 3). Limiting the measurement of benefits to those which potentially accrue to the criminal justice system and crime victims, they found that the Seattle project produced a desirable cost-benefit ratio of 1.79, while the Syracuse programme produced an undesirable cost-benefit ratio of 0.34.



## Comparative economic findings

These individual cost-benefit studies provide important insight on the economic efficiency of early intervention programmes. However, what is perhaps more useful, as well as a more important issue facing policymakers today, is a comparative understanding of economic efficiency. Specifically:

- Compared to other early intervention programmes, which one provides the best economic return?
- Compared to other types of prevention strategies (for example, correctional intervention), which one provides the best economic return?

Leading studies in America by Greenwood et al (1996) and Donohue and Siegelman (1998) have attempted to investigate these important questions with respect to early intervention against delinquency. The former compared the cost-effectiveness of four types of preventive programme (home visiting/day care, parent training, graduation incentives, and supervision of delinquents) with California's 'three strikes and you're out' law that sent offenders who were convicted three times by the courts to prison, irrespective of the severity of their offences. A mathematical model of "criminal populations in prison and on the street, as affected by criminal career initiation, arrest and sentencing, release, and desistance from criminal activity" was used to compute each programme's impact on crime and criminal justice system costs (Greenwood et al, 1996, p. 17). The study found that the early intervention programmes of parent training and incentives for students to complete their high school education were the most cost-effective of the five programmes, while the early intervention programme of home visits and day care was rated the least cost-effective.

Donohue and Siegelman, meanwhile, investigated "whether the social resources that will be expended a decade or more from now on incarcerating today's youngsters could instead generate roughly comparable levels of crime prevention if they were spent today on the most promising social programs" (1998, p. 31). On the basis of a 50 per cent increase in the U.S. prison population over a 15-year period, (assumed from the level in December 1993 and trends at the time) it was estimated that this policy would cost between \$5.6 and \$8 billion (in 1993 dollars) and result in a 5 per cent to 15 per cent reduction in crime. From the selected programmes (High/Scope Perry and the Syracuse project, see above), it was found that comparable reductions in crime could be achieved by early intervention if they were allocated the upper range of funding that would have been spent on prisons.

## Conclusions and priorities for future research

As can be seen from this summary, research on the economic costs and benefits of early intervention programmes is considerably limited. Nevertheless, from those analyses that have been conducted, early intervention shows promise as an economically efficient approach to preventing later anti-social behaviour and offending. Comparative economic evaluation research further suggests that preventive services can match or exceed the economic value of other approaches, notably, punitive, custodial sanctions.

The top priority for advancing knowledge about the monetary value of early intervention should be greater use of experimental research designs, particularly randomised experiments (see Sherman et al, 2002). As a cost-benefit analysis is only as convincing as the evaluation upon which it is based, the stronger the research design of the outcome evaluation, the more confidence that can be placed in the findings of the cost-benefit analysis.

Another top priority for research in this area is to ensure that cost-benefit analyses are both methodologically rigorous and comprehensive in their coverage of programme resources used (costs) and programme effects (benefits). Cost-benefit analyses should follow the six-step process outlined above and adhere to economic principles. Only through high quality scientific research can we have confidence in what works and what is worthwhile.

## Chapter 7 : Overview and conclusions

### *David Utting*

This report resulted from a series of discussions among leading practitioners, academic experts and policy makers about the scope for early intervention and prevention of anti-social behaviour. The emphasis has been on evidence and, in particular, on promising preventive approaches whose effectiveness has been convincingly and rigorously demonstrated by research. Recognition has also been given to the danger that even programmes with the strongest research credentials risk being ineffective at the delivery stage unless they are faithfully replicated and implemented.

The formidable body of research cited in the preceding chapters endorses a well-established view that it is never too early to make support available that will encourage children's positive development. Furthermore, that – as children develop through adolescence – it is never too late. In recent years, the language of prevention based on knowledge regarding the underlying risk and protective factors in children's lives has become common currency among policy makers – as demonstrated by *Every Child Matters*, the Government's Green Paper on children's services (Chief Secretary to the Treasury, 2003). So, too, has recognition that different risk factors become salient at different stages in children's development and that support not only needs to start early, but also be sustained as children grow older. Results from well-evaluated parenting or pre-school enrichment programmes are impressive in their proven ability to reduce anti-social behaviour. But easy analogies between these preventive interventions and inoculations against infectious disease tend to mislead. To be truly effective, action that reduces risk and enhances protection in children's lives has to be reinforced over time and in different settings. Parents and families remain important influences throughout childhood, but the influence of schools, friends and peers and the wider community become increasingly significant as children grow older.

Existing knowledge, likewise, underlines the wisdom of tackling the whole range of negative factors that cluster together in the lives of the most vulnerable children, rather than seeking 'one shot' solutions to individual risks. Innovative approaches to community prevention – notably the *Communities that Care* initiative in the United States and Britain – have recognised this by equipping residents and professionals with the tools to identify and target a range of priority risk factors affecting children in their neighbourhood (Hawkins & Catalano, 1992; Communities that Care, 1997). But the message about finding multiple solutions for multiple problems applies equally to services targeting individual children at high risk of becoming anti-social,

socially excluded adults. The particular focus of this report has been on identifying programmes and services that have demonstrated the greatest promise in preventing the most persistent conduct problems among children, and in reducing the risks of later problem behaviour, including drug misuse and offending. It has described the evidence that there are a group of 'life-course persistent' offenders whose anti-social behaviour from an early age distinguish them from 'Adolescence Limited' offenders whose criminal activities start later, end sooner and tend to be less serious while they last. While different theories have been advanced to explain the distinction, the practical message that preventive interventions with young children exposed to high levels of risk may be disproportionately useful in reducing the chances of their later involvement in serious and, particularly, violent offending is unmistakable.

## Prevention during pregnancy

Even those who have long been persuaded by the case for providing preventive services from an early age may be impressed by the answer that Sutton and Glover provide in Chapter 1 to the question '*How early?*' Although research has consistently associated factors such as low birth weight and maternal smoking or alcohol consumption during pregnancy with later health, education and behaviour problems, recent studies have served to clarify the links. We now know, for example, that mothers smoking more than six cigarettes a day while pregnant is a robust, independent predictor for their babies – especially boys – developing diagnosable conduct disorders during childhood (Wakschlag, 1997). Maternal alcohol consumption has been linked to attention-deficit disorders in children (Mick et al, 2002), while longer-term studies have shown a close relationship between maternal antenatal smoking and children's later involvement in violent and non-violent crime (Brennan et al, 1999). As new evidence emerges concerning the adverse effects of nicotine during pregnancy on a baby's neural functioning, so the case for 'very early' prevention becomes even more compelling. The practical difficulties facing the Government's *Sure Start* programme and other initiatives in getting a 'smoking cessation' message to mothers who may already be under severe stress are formidable. But the justification for pressing on and redoubling these existing efforts has never been stronger. Continued action to reduce the number of teenage pregnancies is also justified, given the association between birth to a young mother and a range of later problems, including emotional and behavioural difficulties and chronic offending (Conseur et al, 1997; Moffitt et al, 2002). Policy makers should also note the evidence that the term 'teenage parent' is apt to mislead since disproportionately poor outcomes in terms of learning, health and social wellbeing have been identified for children of mothers aged under 23 (Hobcraft & Kiernan, 1999).

Recent studies have, meanwhile, linked prematurity and low birth weight to children's subsequent hyperactivity and conduct disorders (Pharoah et al, 1994; Middle et al, 1996; Sykes et al, 1997). This underlines the value of investment in obstetric research to untangle the multifactorial causes of premature birth. But it is also worth re-emphasising the point made by Sutton and Glover that links between low birth-weight and conduct problems apply to a very small proportion of babies – around 1 per cent. Thus, the eventual contribution of low birthweight to the offending population is likely to be small. A potentially more significant connection is the strong link that Glover and colleagues (2002) have begun to find in longitudinal data between mothers' stress and anxiety during pregnancy and children's behavioural problems, including attention-deficit disorders among boys. No study has yet evaluated a programme or service designed to reduce maternal stress during pregnancy. However, this is one more area where a well-designed and professionally-delivered home visiting programme, such as the *Nurse-Family Partnership* described and evaluated in the United States by Olds and colleagues (1998), appears especially promising. This programme, offered to young and mostly disadvantaged and/or lone mothers, included fortnightly visits by purpose-trained nurses during pregnancy that, for one of the experimental groups, continued for two years after the birth. The support provided included parenting and health education, referrals to other services, employment advice and help forming mutual support networks. Not only did the home visiting yield positive early results in terms of lower levels of child abuse compared with control groups, but it also had long-term effects on children's behaviour, including fewer arrests and convictions by the age of 15. In the absence of UK replication research, this is important evidence of the potential effectiveness of an intensive antenatal home visiting programme, for a programme that offers 'multiple' support – and for that support to be sustained in the first years of life.

## Birth to two years

In Chapter 2, Sutton and Murray raise the inevitable question of '*how soon?*' it is appropriate to become concerned about parent-child relationships and signs of behaviour problems among young children. The issue is of increasing interest as science becomes more systematic and skilled at diagnosing maladaptive behaviour in children under 3 and in identifying some of the early warning signs in infants as young as six months (Bates, et al, 1991; Rose et al, 1989; Sroufe et al, 1990; Weinfield et al, 2000). Expanding knowledge about the long-term implications of poor bonding between infants and their mothers, of harsh or neglectful parenting and of aggression in two-year olds underlines the likely value of making early and sustained support available. A growing understanding of the environmental 'permitting circumstances' where good-enough parenting becomes possible (Rutter, 1974)

further emphasises the need for support services across the gamut of disadvantage found among most families of vulnerable children.

Policy makers centrally and locally may, however, fall back on a more pragmatic resolve to support and protect young children in the 'here and now'. Using effective screening and preventive interventions to minimise the adverse consequences of postnatal depression is, for example, justified by the pressing short-term needs of babies and their mothers. The evidence linking insecure attachment to later problem behaviour merely adds weight to an already unanswerable case. Immediate protective action is, likewise, imperative where young children are being physically or sexually abused, or assessed as being in danger. Only subsequently, when the child is safe, can knowledge of the longer-term implications of extreme exposure to risk be used to recognise the child's support needs and those of its parents and/or carers.

As the *Sure Start* programme has demonstrated, parents may be more willing to hold the door open to friendly, non-stigmatising support and advice when they have young children than at any other time. Research that points to the value of baby massage, or the routine use of front-pack baby carriers to promote strong parent-child attachment is of potentially universal application and benefit. At a more targeted level, the evaluations of home visiting programmes demonstrate long as well as short-term benefits. These include the promising use of para-professional 'Community Mothers' in the UK and Eire (Johnson et al, 2000) as well as the work of Olds and colleagues in the United States (see above). The valuable role that trained nurses / health visitors can play is reinforced by evidence that they can successfully deliver programmes as varied as screening and support for mothers with postnatal depression (Cooper et al, 2003) and parenting courses for the parents of children with attention deficit (ADHD) disorders (Sonuga-Barke et al, 2001).

### Three to eight years

As children become more 'social', associating with other children in pre-school settings and then in school itself, so hyperactivity, attention deficits, aggression and other anti-social behaviour become more obvious. In objective terms, too, severe conduct problems are relatively stable and easier to identify by the age of three. As Gardner, Lane and Hutchings point out in Chapter 3, there is a relatively rich seam of research concerning effective preventive interventions for this age group. *The Incredible Years* devised by Carolyn Webster-Stratton and colleagues in the United States is among the best known of all group-based parenting programmes and certainly the most extensively and rigorously evaluated. Improvements in parental style, relationships and parent-child behaviour have been recorded from trials in

clinical and community settings (Webster-Stratton, 2001). These positive findings have been replicated in both types of setting in the UK and, encouragingly, in work with black and minority ethnic families (Scott et al, 2001; Gardner & Burton, 2003). The approach has also been successfully expanded into a complementary programme for children that is now being used in Britain (Webster-Stratton, 2000). The *Positive Parenting Programme* ('Triple P') devised and positively evaluated in Australia by Sanders and colleagues (2000) has likewise gained a foothold in the UK. From a policy-making perspective, its division into five delivery levels of increasing intensity is especially interesting. While level 1 is a programme for universal use with parents, level 5 targets parents of children whose behaviour problems are compounded by other family problems.

Although grounded in a different theoretical ('constructivist') tradition, the High/Scope Perry Pre-School Programme offers a pre-eminent, example of the potential for work with young children to exert a positive long-term effect on their behaviour, later criminal involvement and other life chances (Schweinhart et al, 1993). The quality of curriculum, equipment and staffing ratios appear to be integral to its particular success with children from a disadvantaged neighbourhood, as well as a 'plan-do-review' approach that encourages reasoning skills and self-efficacy. For an older age group, the Promoting Alternative Thinking Strategies ('PATHS') programme (Greenberg et al, 1998) is an example of a strongly evaluated curriculum being used in UK primary schools to promote social competence, self-control and problem-solving. As yet, however, there is no UK equivalent for the Seattle Social Development Project where training to improve children's cognitive skills was successfully combined with a parenting programme and a classroom management programme for teachers. This 'multimodal' programme was sustained over six years of primary education with changing components as the children grew older. The promising long-term outcomes, measured at age 18, included less violent, criminal behaviour and less heavy drinking than a control group, as well as stronger attachment and commitment to school (Hawkins et al, 1999).

## Nine to 13 years

As children reach the 'cusp' between the end of primary school and their first years of secondary education the influences on their behaviour grow increasingly complex. Their relationships with parents are still hugely important, but so increasingly, are friendships and the example set by teachers and other significant adults in their lives. They are more aware of the neighbourhoods where they live and of the messages delivered through television and other media. This is also an age group where some children will become involved in 'early onset' offending and in under-age smoking, drinking and other substance misuse. In terms of prevention,



there is a continuing need for universal services – this is, for example, the age group most likely to benefit from drug and alcohol education, including strategies for resisting negative peer pressure. Evaluation has demonstrated that tutoring programmes such as *Reading Recovery* (Hurry & Sylva, 1998) are one effective way to help underachieving children in primary school who are falling behind in literacy or numeracy. But ‘whole class’ and ‘whole school’ approaches have also proved effective in reducing the risks associated with anti-social behaviour, for example the *Bullying Prevention Project* (Smith & Sharp, 1994; Olweus et al, 1999). However, given the equation between ‘early onset’ and ‘life-course persistent’ anti-social behaviour, it is also an age group where precocious criminal activity points towards more intensive as well as targeted attempts at prevention. Lane, Gardner, Hutchings and Jacobs, in Chapter 4, demonstrate how high the stakes may have risen for severely anti-social children in this age group, given the increased risks of involvement in chronic, serious and violent offending once they reach adulthood.

Among the interventions described in Chapter 4, most have been evaluated in the United States, although a growing number have been introduced into Britain in recent years. Some have worked through schools or youth organisations to reduce conduct problems and delay the onset of substance use and/or offending. For example, mentoring programmes have sought with varying degrees of success to tackle anti-social behaviour through regular contact with an adult or older peer who befriends a young person and offers them a positive role model. The *Big Brothers & Sisters* programme, working with children and young people from lone parent families, has yielded some of the most positive evaluation results to date, in terms of preventing delinquent behaviour (Tierney & Grossman, 1998). Other interventions make families the main focus for intervention, albeit in a more intensive and age-specific format. Some Youth Offending Teams in England have, for example, made use of the *Functional Family Therapy* model (Barton et al, 1985; Gordon, 1995) when designing programmes for use with the Parenting Order introduced by the Crime and Disorder Act, 1998.

The various evaluations of *Multi-Systemic Therapy* (MST) (Henggeler, 1999) are an even stronger indication of the range and depth of service delivery that may be needed to achieve positive results with young offenders from the most dysfunctional and disadvantaged families. Practitioners in London and Cambridge have begun using this approach, which, in the United States, is presented as a cost-effective alternative to youth custody. The American research has recorded reductions in offending, mental health problems and out-of-home placements together with improved family functioning. However, prevention at this level requires the intensive services of a multi-disciplinary team, on-call for much of the day, providing a combination of behavioural therapy and tailored support services



for the whole family (Henggeler et al, 1998). A comparable message concerning the intensity of support that may be necessary when working with children with severe behaviour problems from this age group emerges from programmes where adolescent offenders have been placed in foster care. While the results from *Multidimensional Treatment Foster Care* with 12 to 18 year olds in Oregon are encouraging in terms of offending reductions, the support needs of the foster parents and staff working with them are exceptionally high (Chamberlain & Reid, 1997).

## Implementation

Accounts of the practical demands that have arisen when delivering intensive programmes like *Multidimensional Treatment Foster Care* and MST are an important reminder that no intervention can be effective unless properly implemented. This report has emphasised the importance of services aiming to prevent children's anti-social behaviour through tried and tested approaches. But, as Hutchings, Gardner and Lane make clear in Chapter 5, even the most promising and well-evaluated programme can founder through poor implementation. Misguided attempts to 'improve' on the contents of a curriculum, or to reduce costs by diluting the number or frequency of sessions in a course are among the common reasons why otherwise well-intentioned initiatives collapse (Ghate, 2001). Lack of foresight and preparation, apparent through poor communication with intended participants, or unsuitable choice of delivery location and time of day, may undermine an intervention almost from the start. Researchers as well as practitioners must learn from the example of *The Incredible Years* and other programmes that provide certified training as well as manuals and where the conditions necessary for successful implementation have been analysed and reported. Policy makers, for their part, should recognise the many occasions when faithful replication of an existing programme is the prudent way to proceed rather than corner-cutting attempts at 'adaptation' or 'innovation'. In addition to traditional research reviews, service planners can also draw on a growing number of subscription publications and on-line libraries that offer detailed information on content and implementation as well the evaluation findings on effective programmes. The 'Blueprint' series produced by the Center for the Study and Prevention of Violence at the University of Colorado and referred to in Chapter 5 is an outstanding example (Mihalic et al, 2001; 2002). Investment in proven interventions, including necessary training and the many 'small steps' required for faithful implementation is the prudent way to ensure positive outcomes for children and their families.

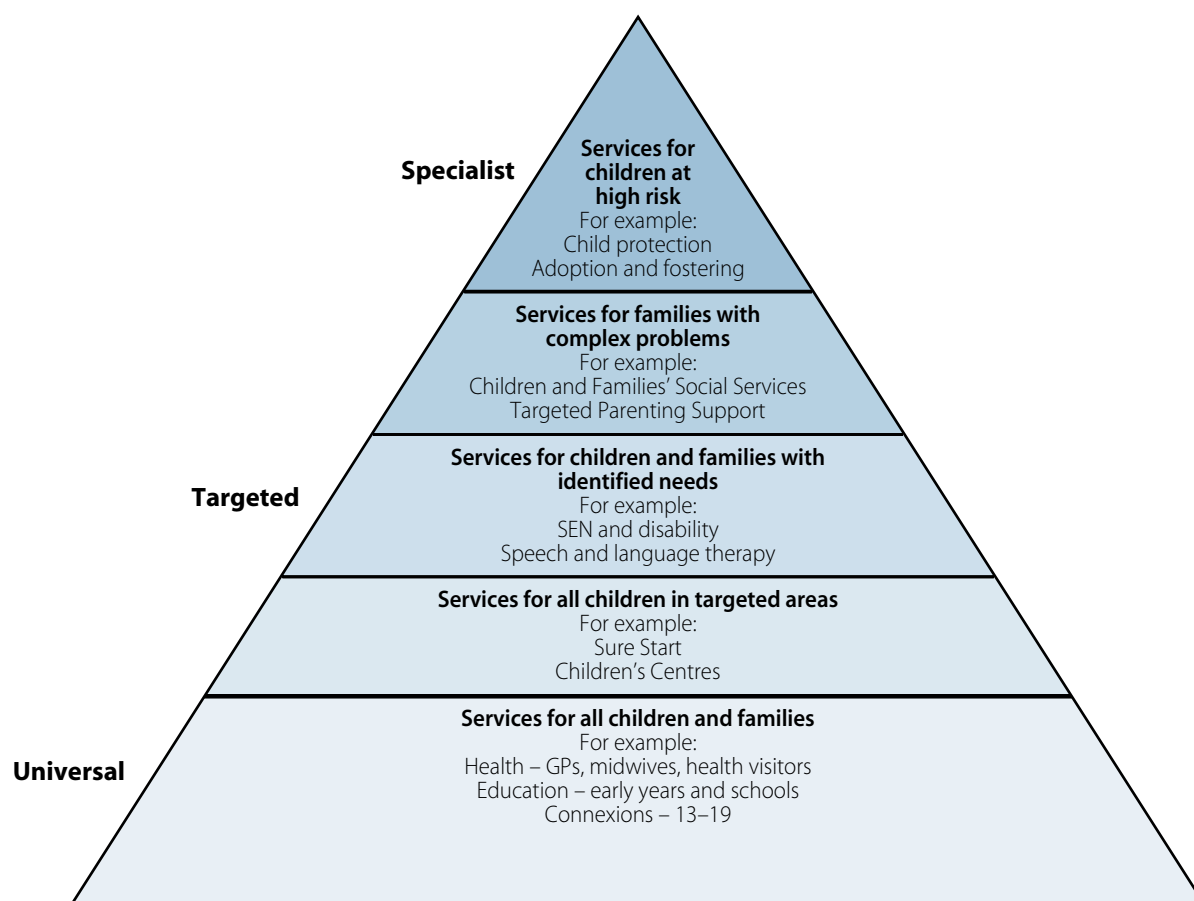
## Cost-effectiveness

The accumulation of convincing evidence from evaluated programmes in the past 30 years has moved the case for early intervention and prevention of anti-social behaviour far beyond homely assertions that 'an ounce of prevention is worth a pound of cure'. What policy planners may still find lacking is a detailed understanding of which interventions offer the best value for the taxpayer's money. Assessments of the costs of *not* intervening – like the calculation by Scott and colleagues (2001) that conduct disordered children age 10 had cost public services an average of £70,019 by the age of 27, compared with £7,423 for children without behaviour problems – are salutary. But, as Welsh and Farrington suggest in Chapter 6, relatively few evaluations of early developmental prevention programmes have included an economic assessment of their effectiveness. The way that cost-effectiveness calculations, notably those from the longitudinal High/Scope Perry Pre-school Study, have been disproportionately quoted (and misquoted) by policy makers sends a powerful signal that this is an area where researchers could do more to meet the needs of service planners. A simple analogy with medicine demonstrates how two treatments can be equally effective, yet one may be disproportionately more expensive than the other. However, this gives little clue to the complexity of the task when assessing preventive programmes whose aims are to reduce a range of risk factors that are, in turn, linked to a range of different problems and problem behaviours. The High/Scope study quite reasonably calculates its effectiveness in terms of reduced need for special education, lower welfare payments and more tax paid because of high rates of employment, as well as lower levels of crime and drug misuse (Barnett, 1993). Other programmes when assessed only in terms of crime and criminality prevention may appear less cost-effective (Aos et al, 2001). Policy makers in future will want to be sure they are comparing like with like; but that will only be possible once cost-effectiveness become a more routine component of evaluation.

## Targeting

In its 2003 Green Paper on children's services, the Government acknowledged that specialist services for children whose family circumstances or behaviour place them at 'high risk' form the tip of a preventive pyramid whose solid base is made up of universal services available to all families.

**Figure 7.1: Targeted services within a universal context**



Source: Every Child Matters (Chief Secretary to the Treasury, 2003)

Immediately above the base come services, like the *Sure Start* programme for children under four that are targeted on disadvantaged neighbourhoods, but still offered universally to every qualifying child and family in a defined geographical area. Other examples of services that are intermediate between universal and targeted services include the work of multi-agency Child and Adolescent Mental Health Services (CAMHS) within the National Health Service (See Window et al, 2002 for the positive evaluation of a CAMHS *Child Behaviour Initiative* implemented in Leicestershire). Likewise, the multi-agency *On Track* programme in England and Wales was introduced by the Government to establish early intervention and prevention services for children and young people in 24 disadvantaged, high-crime neighbourhoods. The outcomes of these projects are still being evaluated nationally, but some of the early results are encouraging (France et al, 2004; Atkinson et al, 2003). These geographically targeted services mostly offer 'primary' and 'secondary' preventive services as characterised in the Introduction to this report. But the level above them in the Green Paper pyramid (Figure 7.1) marks a point at which a more specialist or intensive level of 'secondary' or even 'tertiary' support is indicated, and the targeting of individual children and families who may need them becomes an issue.

This report has provided examples of promising programmes that can play a part in preventing 'life-course persistent' anti-social behaviour. They can be applied at different stages in children's development as well as different levels of the prevention pyramid. Generally speaking, as children's anti-social behaviour grows more severe, obvious, or both, so the case for individual targeting can be expected to increase. For example, primary prevention initiatives to dissuade mothers from smoking during pregnancy are probably best pitched at universal or community level. The same is true of screening programmes for antenatal stress or postnatal depression (although the actual support offered to mothers in difficulties will, by definition, target individuals). By contrast, *Multi-systemic Therapy (MST)* is an example of a highly intensive family support programme whose value partly lies in its effectiveness as a tertiary 'eleventh hour' intervention, very selectively targeting adolescent offenders who might otherwise be heading for a criminal career. Usefully, this report has been able to highlight a number of positively evaluated programmes that can be successfully implemented *either* in neighbourhood programmes, or in more specialist settings. Webster-Stratton's *Incredible Years* has, for example, been found to be effective when offered to low-income families in the community and with families referred to a clinic because of their child's behaviour problems. It has also proved effective across different ethnic groups (Webster-Stratton, 2001). *The Triple P* programme takes this kind of versatility a stage further by offering a parenting skills curriculum at five different levels of intensity (see Chapter 3).

Specialist support services may currently be offered to individual children and families for a wide and seemingly haphazard range of reasons. These extend from health screening procedures during infancy to concerns raised by primary schools, and to contact with the police and criminal justice system. The Government's *Information, Referral and Tracking (IRT)* initiative in 15 local authority areas (making up 10 'Trailblazers') is an attempt to promote better information sharing between agencies so that individual children who need it receive more coherent and timely support. The Green Paper *Every Child Matters* proposed the development of information and assessment methods with an emphasis on securing further changes of culture and practice among professionals. It also discussed how information sharing systems could be improved to facilitate communication between practitioners. By allowing practitioners to flag-up early warnings concerning the children they were working with, it argued that a more holistic view could be taken of each child's support needs. But as knowledge increases concerning the contribution of different risk and protective factors in children's lives, increased political and scientific interest can be expected in developing assessment tools with the potential for screening children into preventive programmes from an early age. This, in one sense, is a logical extension of the research message highlighted in this

report that the pathways followed by a small minority of children whose anti-social behaviour becomes 'life-course persistent' are relatively predictable.

Caution is, however, required. In particular, any notion that better screening can enable policy makers to identify young children destined to join the 5 per cent of offenders responsible for 50-60 per cent of crime is fanciful. Even if there were no ethical objections to putting 'potential delinquent' labels round the necks of young children, there would continue to be statistical barriers. In the Introduction to this report, Stephen Scott's diagram depicting the continuity of anti-social behaviour (Figure 1.1) shows substantial flows *out of* as well as *in to* the pool of children who develop chronic conduct problems. As such it is valuable for demonstrating the dangers of assuming that anti-social five-year olds are the criminals or drug abusers of tomorrow, as well as the undoubted opportunities that exist for prevention. Since the experience of service providers suggests that labelling children would also counter-productive to gaining the trust and participation of parents, there must be a strong presumption in favour of preventive services presenting and justifying themselves in terms of children's existing needs and problems, rather than future risks of criminality. Put simply, there are likely to be more pressing reasons why parents might welcome relief from their three-year old child's continual biting, kicking, non-compliance, tantrums and other behaviour problems than a reduced risk of later offending.

## Support from the start

Early prevention of anti-social behaviour, as described in this report and envisaged in the Green Paper *Every child matters*, is always likely to rely on an unofficial pact between families accepting support with problems in the 'here and now' and the long-term objectives of practitioners and policy makers. But it is the responsibility of the latter to ensure the programmes and services being offered are likely to be effective in both contexts. Greater rigour in the selection of evidence-based approaches and a stronger commitment to understanding the fine print of implementation are both required. Researchers must also do more to illuminate the choices facing policy makers and the communities they serve, by supplying more of the necessary details, including information concerning cost-effectiveness. But this is not an excuse to delay further action. Rather, as government moves to instil the preventive principles derived from *Sure Start*, *On Track* and other special initiatives into mainstream children's services, it is a plea for the support provided to be as effective, comprehensive and attractive as possible.

In its *Youth Justice 2004* report, The Audit Commission tracks the life story of 'James', a young offender who, at the age of 15, is excluded from special school and has

already served his second custodial sentence. He lives with his mother (who is seldom home) and an older step-sister who is a known drug user. His father only visits occasionally and is violent and disruptive when he does.

Drawing on files from the various agencies involved with James and his family as he grew up, it notes that just after he started infants' school his mother reported difficulties managing his behaviour at home. As he fell behind in primary school, learning and speech difficulties were identified and he began to truant. He was given a special school place, and at the age of 10 received his first police caution for an arson attack (with others) on a secondary school. By the time he was 13, he was regularly truanting and had been convicted of offences including criminal damage, theft and assault on a girl. At 14 he was sent to a secure unit following breaches of an intensive supervision order imposed for taking a car.

The Audit Commission takes what is known of the unsuccessful attempts by different agencies from the age of 5 onwards to intervene in James's life and costs them more than £153,000 – of which almost £103,000 is accounted for by the costs of his two custodial sentences. By contrast, it offers an alternative scenario in which family support through *Sure Start*, made available from infancy, could have prevented James from offending and kept him in mainstream education. The cost, including speech and language therapy at age 6, and intensive mentoring and one-to-one support in junior and secondary school, is put at £42,000 (Audit Commission, 2004).

The cost estimates are partial, and many of the alternative 'interventions' described by the Audit Commission fall well short of the criteria for evidence of 'effectiveness' or 'promise' applied to the programmes in this report. Yet even on that basis they make an impressive case for preventive services saving public money as well as reducing the unquantifiable fear and distress caused by crime. It is, however, the human case for early intervention that is most starkly illustrated by James's story. Like thousands of other young people drifting into careers of chronic and violent offending, his life chances could have been transformed had effective support been available from the start, when he and his family first needed it.

## **Appendix 1: Papers prepared for the series of seminars funded by the British Psychological Society at the Royal Society, 2002.**

Crowley, M. and the Parenting Education and Support Forum. *Reaching 'Hard to Reach' Parents.*

Email: mcrowley@dial.pipex.com

Einzig, H. *Support from the Start: Working with Young Children and their Families to Reduce the Risks of Crime Further Considerations*

Email: einzig@blueyonder.co.uk

Gardner, F. *What do all the different reviews say about effectiveness?*

Email: Frances.Gardner@applied-social-studies.ox.ac.uk

Glover, V. *Prevention of criminality: start in utero.*

Email: v.glover@ic.ac.uk

Hutchings, J. and Lane, E. *The role of health visitors in early interventions with children at risk of developing offending behaviours.*

Email: j.m.hutchings@bangor.ac.uk

Email: e.lane@bangor.ac.uk

Murray, L. *The potential role of postnatal depression in the development of early onset persistent, antisocial behaviour.*

Email: lynne.murray@reading.ac.uk

Stevenson, J. *Diet and behaviour in children.*

Email: jsteven@soton.ac.uk

Welsh, B.C. *What do we know about the economic costs and benefits of early developmental prevention of delinquency?*

Email: brandon\_welsh@uml.edu



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