

An update on interventions for conduct disorder

Stephen Scott

Abstract Childhood conduct disorder casts a long shadow over adulthood, often leading to antisocial personality, drug misuse, increased rates of psychosis and earlier death. This article reviews a range of effective treatments, and shows what is ineffective. The common theme underlying interventions that work is that they change the environment around the young person, with parent training emerging as the most effective. Medication is largely ineffective. The task now is to enable more of these interventions to be available at a reasonably early age.

Children with conduct disorders (persistent disruptive, deceptive and aggressive behaviours) are highly likely to require clinical intervention. Such interventions offer an important opportunity to prevent a burden of poor health and social maladjustment in adulthood. Conduct problems cause children, families and schools considerable distress, and they result in social and educational impairment (Lahey *et al*, 1997). Negative outcomes in adulthood include antisocial personality disorder, criminal and violent offending, and incarceration. Childhood conduct problems further predict risk for numerous problems in adulthood: serious difficulties in education, work and finances, homelessness, abuse, dependence on tobacco, alcohol and drugs, and even poor physical health, including injuries, sexually transmitted infections, compromised immune function, dental and respiratory problems, as well as a variety of mental disorders and suicidal behaviour (Moffitt *et al*, 2002). Adults with substance, affective, anxiety and eating disorders, and even individuals with schizophrenia-spectrum disorders and mania, are more likely to have a history of conduct disorder (Kim-Cohen *et al*, 2003). This long list of negative long-term outcomes highlights the value of successful treatment of conduct problems during childhood.

Intervention principles

Engage the family

Any family coming to a mental health service is likely to have some fear of being judged 'bad' and possibly 'mad'. Families of children with conduct

problems are more likely to be disadvantaged and disorganised, to have had arguments with official agencies such as schools and welfare officers, and to be suspicious of officialdom. Rates of drop-out from treatment for such families are high – often up to 60% (Kazdin, 1996a). Practical measures such as helping with travel, providing child care and holding sessions in the evening or at other times to suit the family are all likely to facilitate retention. Forming a good alliance with the family is especially important: Prinz & Miller (1994) showed that adding engagement strategies during the assessment, for example showing parents that the therapist clearly understood their viewpoint, led to increased attendance at treatment sessions. Once engaged, the quality of the therapist's alliance with the family affects treatment success: in one meta-analysis it accounted for 15% of the variance in outcome (Shirk & Karver, 2003).

Select which treatment to use and who should deliver it

If possible, interventions should specifically address each context, as it cannot be assumed that successful treatment in one area will generalise to another. For example, improvements in the home arising from a successful parent training programme will not necessarily lead to less antisocial behaviour at school (Scott, 2002). If classroom behaviour is a problem and a school visit shows that the teacher is not using effective methods, advice to the teacher and other school staff can be very effective. If the child has pervasive problems including fights with peers, individual work on anger management and social

Stephen Scott is Professor of Child Health and Behaviour at the Institute of Psychiatry (De Crespigny Park, London SE5 8AF, UK. Email: s.scott@iop.kcl.ac.uk) and head of the National Specialist Conduct Problems Clinic. His interests include devising interventions and evaluating their effectiveness while trying to uncover the mechanisms through which they work. He is a contributor, with Professor Sir Michael Rutter and others, to the fifth edition of the authoritative text *Child and Adolescent Psychiatry*, due out in 2008.

skills should be added. Medication is controversial and generally best avoided; possible indications are discussed below. Generally speaking, in light of the strong evidence for its effectiveness, the first line of treatment should be parent training.

The National Health Service (NHS) has insufficient resources to treat all antisocial behaviour in childhood, so the mental health professional must decide whether other agencies can be involved. A number of voluntary-sector bodies now provide parent training, and schools may be able to set up suitable behavioural programmes.

Develop strengths

Identifying the strengths of both the child and the family is crucial. This helps engagement, and increases the chances of effective treatment. Encouraging their abilities helps the child spend more time behaving constructively rather than destructively – more time spent playing football is less time spent hanging round the streets looking for trouble. Encouraging prosocial activities – for example to complete a good drawing or to play a musical instrument well – may lead to increased achievements, heightened self-esteem and greater hope for the future.

Treat comorbid conditions

A child's antisocial behaviour often affects others so strongly that comorbid conditions can easily be missed. Yet in clinical referrals, comorbidity is the rule rather than the exception. Common accompaniments are depression and attention-deficit hyperactivity disorder (ADHD); a number have post-traumatic stress disorder (PTSD), for example having been beaten by their father or witnessing his physical violence against their mother.

Promote social and scholastic learning

Treatment involves more than the reduction of antisocial behaviour – stopping tantrums and aggressive outbursts, while helpful, will not lead to good functioning if the child lacks the skills to make friends or to negotiate – positive behaviours need to be taught too. Specific intellectual disabilities such as reading retardation, which is particularly common in these children, need to be addressed, as do more general difficulties such as planning homework.

Use guidelines

The American Academy of Child and Adolescent Psychiatry (1997) has drawn up sensible practice

parameters for the assessment and treatment of conduct disorder, and the UK National Institute for Health and Clinical Excellence (2006) has published an appraisal of the clinical efficacy and cost-effectiveness of parent training programmes.

Treat the child in their natural environment

Most of the interventions described below are intended for out-patient or community settings. Psychiatric hospitalisation is very rarely necessary: there is no evidence that in-patient admissions lead to gains that are maintained after the child goes home.

Specific interventions for children 3–12 years of age

Parent management training

Programmes have been designed to improve parents' behaviour management skills and the quality of the parent-child relationship. Most target skills such as those listed in Box 1, but interventions may also address distal factors likely to inhibit change, for example parental drug or alcohol misuse, maternal depression and violence between parents. Treatment can be delivered in individual parent-child sessions or in a parenting group. Individual approaches offer the advantages of live observation of the parent-child dyad and therapist coaching and feedback regarding progress.

Examples of good practice

The Helping the Non-compliant Child programme (McMahon & Forehand, 2003) and parent-child interaction therapy (PCIT; Eyberg, 1988) are two examples of well-validated individual interventions. Group treatment has been shown to be equally effective, and offers opportunities for parents to share their

Box 1 Parent management training

Key targets of parenting skills include:

- promoting play
- developing a positive parent-child relationship
- using praise and rewards to increase desirable social behaviour
- giving clear directions and rules
- using consistent and calmly executed consequences for unwanted behaviour
- reorganising the child's day to prevent problems

experience with others who are struggling with a disruptive child. Group treatments emphasise discussion among group leaders and parents, and may use videotaped vignettes of parent–child interactions that illustrate the ‘right’ and ‘wrong’ ways to handle situations. Two well-known group treatments are the Incredible Years Programme (Webster-Stratton, 1981) and the Positive Parenting Programme (Triple P; Sanders *et al*, 2000a).

Effectiveness

Behavioural parent training is the most extensively studied treatment for children’s conduct problems, and there is considerable empirical support for its effectiveness (Weisz *et al*, 2004). Several programmes are considered well-established according to American Psychological Association criteria, after multiple randomised trials (e.g. Patterson *et al*, 1982; Webster-Stratton *et al*, 2001) and replications by independent research groups (e.g. Scott *et al*, 2001). Randomised trials have shown the effectiveness of Triple P (e.g. Bor *et al*, 2002; Sanders *et al*, 2000b), and there is at least one independent replication supporting the PCIT model (Nixon *et al*, 2003). These studies suggest that behavioural parent training leads to short-term reduction in antisocial behaviour. Follow-up studies suggest enduring effects at up to 6 years after treatment (Hood & Eyberg, 2003; Reid *et al*, 2003).

It should be noted that the wider terms ‘parenting support’ and ‘parenting programmes’ cover a broad range of approaches, many of which are not evidence-based and therefore cannot be advocated.

Some behaviour management programmes are now teaching parents to read with their children, with the idea of targeting multiple risk factors for antisocial behaviour. Although this has not always proved successful, my colleagues and I combined a 12-week behaviour management programme with a relatively intense, detailed reading programme (ten 2-hour sessions) for 5- and 6-year-olds. In a randomised controlled trial (RCT), this combination reduced the rate of oppositional defiant disorder by half and increased reading age by 6 months; ADHD symptoms were also reduced (further details available from the author). This kind of approach is promising since it is relatively inexpensive, using parents as the only vehicle for treatment, yet it hits a number of risk factors for poor outcomes in antisocial behaviour (parenting, oppositional defiant disorder, ADHD symptoms and reading ability).

Child therapies

The most common targets of cognitive–behavioural and social skills therapies for children are aggressive behaviour, social interactions, self-evaluation and

Box 2 The four common targets of cognitive–behavioural and social skills therapies

- To reduce children’s aggressive behaviour such as shouting, pushing, and arguing
- To increase prosocial interactions such as entering a group, starting a conversation, participating in group activities, sharing, cooperating, asking questions politely, listening and negotiating
- To correct the cognitive deficiencies, distortions and inaccurate self-evaluation exhibited by many of these children
- To ameliorate emotional dysregulation and self-control problems so as to reduce emotional lability, impulsivity and explosiveness, enabling the child to be more reflective and able to consider how best to respond in provoking situations

emotional dysregulation (Box 2). In practice most programmes cover all four areas to a greater or lesser extent.

Cognitive–behavioural therapies were originally used mainly with school-age children and with adults, but more recently they have been successfully adapted for pre-school children. These interventions may be delivered in individual or group therapy. Although groups offer several advantages (e.g. opportunities to practise peer interactions), they may have iatrogenic effects (Dishion *et al*, 1999). These appear to be particularly common in larger groups and those with inadequate therapist supervision, where children learn deviant behaviour from their peers and encourage each other to act antisocially.

Examples of good practice

Two of the more popular treatment models are problem-solving skills training with *in vivo* practice (PSST–P; Kazdin, 1996b) and the Coping Power Program (Lochman & Wells, 2002). In PSST–P, which is used with children aged 7 and over, the child receives individual training in interpersonal cognitive problem-solving techniques in 12–20 1-hour sessions. The focus is on identifying problem situations, learning a series of problem-solving steps and applying them first to hypothetical situations, then in role-play and finally in real-life situations. Therapeutic strategies include games, therapist modelling and role-play with therapist feedback. A token system is used in sessions to reinforce children’s efforts at practising target skills. Parents are involved periodically in joint sessions, and may receive behavioural parent training as an adjunctive treatment.

The Coping Power Program is for children aged 8 and over, and is fairly lengthy, comprising 33 group sessions each lasting 60–90 minutes, with periodic (at least monthly) individual meetings. Training focuses on interpretation of social cues, generating prosocial solutions to problems and anger management with arousal-reduction strategies. Treatment is delivered to groups of 5–7 children by a therapist and co-therapist. Sessions include imagined scenarios, therapist modelling, role-play with corrective feedback, and assignments to practise outside of sessions. Parent and teacher training components have also been developed as adjunctive treatments.

Effectiveness

In two RCTs, Kazdin *et al* (1987, 1989) found that PSST results in significant decrease in deviant behaviour and increase in prosocial behaviour. Outcomes were superior to a client-centred, relationship-based treatment and were maintained at 1-year follow-up. The addition of real-life (*in vivo*) practice and a parent training component both enhanced outcomes. Evaluations of the Coping Power Program found reductions in aggression and substance use, and improved social competence (e.g. Lochman & Wells, 2002). Treatment effects were maintained at 1-year, particularly for those whose parents also received parent training (Lochman & Wells, 2004). Replications by independent research groups are now needed.

For further details of evidence-based psychological therapies for children, see Kazdin & Weisz (2003).

Interventions in school

Interventions to promote positive behaviour

Typically, teachers are taught techniques for use with all children in their class, not just those exhibiting the most antisocial behaviour. Successful approaches use proactive strategies and focus on positive behaviour and group interventions, combining instructional strategies with behavioural management (Box 3).

Box 3 The four common targets of classroom techniques

- Promoting positive behaviours such as compliance and following established classroom rules and procedures
- Preventing problem behaviours such as talking at inappropriate times and fighting
- Teaching social and emotional skills such as conflict resolution and problem-solving
- Preventing the escalation of angry behaviour and acting out

Some of the targets listed in Box 3 can be met by training teachers in methods similar to those taught to parents, as described above. However, other techniques are classroom specific. For example, establishing and teaching rules and procedures involves setting rules such as ‘use a quiet voice’, ‘listen when others are speaking’, ‘keep your hands and feet to yourself’ and ‘use respectful words’. Note that these rules are all expressed positively, describing what the child should do, rather than what they should not. Striepling-Goldstein (1997) offers six ‘rules for making rules’:

- 1 make few rules (between three and six)
- 2 negotiate them with the children
- 3 state them behaviourally and positively
- 4 make a contract with the children to adhere to them
- 5 post them on the classroom wall
- 6 send a copy to parents.

Crucial to all this is a systematic and consistent response to children following or not following the rules. Rewards can be social (teacher praise, peer recognition, notes home to parents), material (stickers, certificates, tokens to exchange for food, etc.) or privileges (e.g. extra breaktime, games, parties, computer time). Mild punishments include reprimands, response-costs procedures (losing privileges or points) and time out (being sent to the corner of the room or to another boring place).

Interventions to promote academic engagement and learning

These include self-management and self-reinforcement training programmes that help children, for example, to spend more time on a task or to complete written work more quickly and accurately. An older review of 16 studies found moderate to large effects for such programmes (Nelson *et al*, 1991), and subsequent trials uphold this finding (e.g. Levendoski & Cartledge, 2000).

A number of programmes build on the idea that antisocial children who are failing at school often have parents who do not get involved in their academic schoolwork, and indeed may not value it highly. They do not read with their children, encourage homework or attend school meetings. Approaches include removing barriers to home–school cooperation by training parents to view teachers positively (often their own memories of school will be negative and discouraging) and, equally, training teachers to be constructive in solving children’s difficulties and helping parents engage in academic activities with their children. Although there are good descriptions of such programmes (e.g. Christenson & Buerkle 1999), rigorous evaluations are lacking.

Interventions for teenagers

In adolescence, conduct disorder frequently becomes more serious and can involve criminal offending.

Family-based interventions

The best known intervention for serious antisocial behaviour in teenagers is functional family therapy, brought into being in 1969 by James Alexander and colleagues (Alexander *et al*, 2000). It is designed to be practicable and relatively inexpensive. Between eight and twelve 1-hour sessions are given in the family home, to overcome attendance problems common in this client group; for more intractable cases, 12–16 sessions are offered, usually over 3 months. The target age range is 11–18 years. There are four phases to treatment (Box 4). The first two involve engagement and motivation. Here the therapist works to enhance the perception that change is possible and to minimise negative perceptions of therapy (e.g. poor programme image, access difficulties, insensitive referral). The aim is first to keep the family in treatment, and only then to move on to finding what precisely they want.

One of the techniques used is reframing, whereby positive attributes are enhanced. For example, a youth who frequently offends without getting caught is labelled (the word used in the therapy) as bright. Emotional motivation can be used in reframing: a mother who continually nags may be labelled as caring, upset and hurt.

Families are encouraged to see themselves as doing the best they can under the circumstances. Problem-solving and behavioural change are not introduced until motivation has been enhanced, negativity decreased and a positive alliance established. Explicit attempts are made to reduce negative spirals in family interactions, by interrupting and diverting the flow of negative, blaming speech.

Reframing does not play down the impact of the negative behaviour, but each family member should feel at the end of these two initial stages that:

- they are not inherently bad: it is the way they have done things that has not worked
- even though they have made mistakes, the therapist took their side as much as everybody else's
- even though they experience the problems differently, each family member must contribute to the solution
- even though they may have a lot to change, the therapist will work hard to protect them and everyone else in the family
- they want to come back to the next session because it finally seems that things might get better.

Box 4 The four phases of functional family therapy

- 1 Engagement
- 2 Motivation
- 3 Behavioural change
- 4 Generalisation

The third phase targets behavioural change. There are two main elements to this: communication training and parent training. The success of this phase is dependent on success in the first two phases, and it is therefore not introduced until good engagement and motivation have been established. (In this, functional family therapy differs from programmes in which a fixed number of sessions are allocated to each topic, irrespective of the family's rate of progress.) Behavioural change is approached flexibly according to the family's needs. Thus, if the parents are continually arguing and this is affecting their teenager, the 'marital subsystem' will be addressed (Box 5).

Standard parent training techniques are used, including praise, rewards (called 'contracting' in functional family therapy: e.g. 'If you come home by 6 o'clock each night, I'll take you to the cinema on Saturday'), limit-setting, consequences and response-cost (e.g. losing TV time for swearing).

The fourth and final phase of functional family therapy is generalisation. Here the goals are to encourage family members to generalise the improvements made in a few specific situations to similar situations; to help the teenager and family to negotiate with community agencies such as school; and to help them get the resources they need. Sometimes this requires the therapist to be a case manager for

Box 5 Techniques for dealing with a dysfunctional marital subsystem

- Using the first person voice rather than the second, e.g. instead of 'You are a lazy slob' saying 'I find it upsets me when you leave your socks on the floor'
- Being direct, e.g. instead of complaining to a partner 'He never...', saying directly to the youth 'You never...'
- Being brief instead of making long speeches
- Being specific about the behaviour that is desired
- Offering alternatives to the spouse
- Active listening

the family, a role that necessitates knowledge of the community agencies and how the system works.

Effectiveness

The effectiveness of functional family therapy is well established, and of the 10 replication studies discussed by Alexander *et al* (2000) over half were independent of the developers; a further four are under way in Sweden. The trials published to date all have been positive, with typical recidivism rates 20–30% lower than in control groups.

Multiple-component interventions

I will discuss the example of multisystemic therapy here, as it is one of the best developed treatments of this kind. Developed by Henggeler and colleagues in the USA (Huey *et al*, 2000), multisystemic therapy rests on nine treatment principles (Box 6). The way the therapy is delivered is closely controlled. The weekly monitoring of progress enables barriers to improvement to be addressed immediately and hypotheses regarding what is going on in the family and systems around the teenager to be revised in the light of progress. Clinicians take on only four to six cases at a time, since the work is intensive; there is close attention to quality control by weekly supervision along prescribed lines, and the parents and teenagers fill in weekly questionnaires on whether they have been receiving therapy as planned. Therapy is given for 3 months and then stopped.

Effectiveness

The first outcome studies by the therapy's developers were positive. A meta-analysis of papers published to the end of 2002 by authors that include one of the developers, Charles Borduin, found that in seven studies comparing multisystemic therapy with treatment as usual or an alternative, the mean overall effect size across several domains was moderate; the studies involved a total of 708 youths and 35 therapists (Curtis *et al*, 2004). Outcome domains included offending (arrests, days in prison, self-reported criminality, self-reported drug use), where the mean effect size was moderate; peer relations, where it was small; family relations (large); and individual youth and parent psychopathology symptoms (moderate). However, noticeably larger effect sizes were reported when the therapists were the developers' own graduate students than when they were local community therapists supervised by the developers, when the effect size mean was small. Long-term follow-up (14 years later, when the mean age of the original teenagers was 29) of 176 individuals allocated to multisystemic therapy or usual individual therapy found recidivism rates of 50% and 81% respectively.

Box 6 The principles of multisystemic therapy

- 1 An assessment is made to determine the fit between the young person's problems and the wider environment, identifying strengths and difficulties; difficulties are understood as reactions to a specific context, not necessarily as intrinsic deficits
- 2 During sessions the therapist emphasises the positive and uses systemic strengths (e.g. an aptitude for sports, getting on well with grandmother, the presence of prosocial peers in grandmother's neighbourhood) as levers for change. Each session should acknowledge and work on these strengths
- 3 Interventions are designed to promote responsible behaviour and reduce irresponsible behaviour
- 4 Interventions are focused in the present and are action oriented, with specific, well-defined goals. The emphasis is on what can be done in the here and now, rather than on the need to understand the family and the youth's past
- 5 Interventions target sequences of behaviour in multiple systems that maintain problems
- 6 Interventions are developmentally appropriate. They should fit the life stage and personal level of the family members
- 7 Interventions require daily or weekly effort by family members. This enables frequent practice of new skills, frequent positive feedback for efforts made; non-adherence to treatment agreements rapidly becomes apparent
- 8 The effectiveness of interventions is evaluated continuously from multiple perspectives, with the multisystemic therapy team assuming responsibility for overcoming barriers to successful outcomes.
- 9 Interventions are designed to promote treatment generalisation by empowering parents to address their offspring's needs across multiple contexts

The next test of any therapy is its effectiveness when carried out by teams who have no financial or employment ties with its developers (although they may pay the developers for materials and supervision), with an independent evaluation team (Littell, 2005). The only independent evaluation was also the only one to use proper intention-to-treat analyses (rather than excluding treatment refusers, etc.), and it found, with a large sample ($n=409$)

in Canada, that multisystemic therapy gave no significant improvement over treatment as usual on any outcome, either immediately or at 3-year follow-up (Leschied & Cunningham, 2002). A smaller ($n=75$) independent study in Norway (Ogden & Hagen, 2006) was more positive, reporting effect sizes that were small for self-reported delinquency, moderate for parent-rated and large for teacher-rated (although 40% of data were missing here).

Harsh and outdoor interventions

Harsh, military-style shock incarceration, so-called boot camps, are still popular for young offenders in the USA, where they were promoted by the Office of Juvenile Justice and Delinquency Prevention in 1992, when three pilot programmes were set up. However, several reviews have concluded that they are ineffective (Tyler *et al*, 2001; Benda, 2005; Cullen *et al*, 2005; Stinchcomb, 2005), as did an RCT by the California Youth Authority in which long-term arrest data found no difference between boot camp and standard custody and parole (Bottcher & Ezell, 2005).

In contrast, a meta-analysis of 28 studies of wilderness programmes found a small overall effect size, with recidivism rates of 29% *v.* 37% for controls (Wilson & Lipsey, 2000). Programmes involving intense physical activity and a distinct therapeutic component were the most effective.

Another approach, used for example in the Scared Straight programme, is to attempt to deter delinquent behaviour by frightening individuals with visits to prisons. However, a meta-analysis of nine controlled trials found that this intervention was on average more harmful than doing nothing, as it led to worse outcomes (Petrosino *et al*, 2003).

Medication

No pharmacological intervention is currently approved specifically for conduct disorder. Nevertheless, medication is used relatively frequently and increasingly for this behaviour in the USA (Steiner *et al*, 2003; Turgay, 2004). Primary care physicians are often required to manage such medication, and concerns have been raised because many lack adequate training in developmental psychopathology and do not have time to carry out thorough assessment and monitoring (Vitiello, 2001). In the UK, medication would not generally be supported as good practice because, as discussed below, well-replicated trials of effectiveness are limited, particularly for children without comorbid ADHD.

The best-studied pharmacological interventions for children and adolescents with conduct problems are psychostimulants (methylphenidate and

dexamfetamine), used for ADHD comorbid with conduct disorder. In these circumstances, there is evidence that reduction in hyperactivity and impulsivity also result in reduced conduct problems (Connor *et al*, 2002; Gerardin *et al*, 2002). There is insufficient reliable evidence to decide whether stimulants reduce aggression in the absence of ADHD; one study (Klein *et al*, 1997) found that improvements in the symptoms of conduct disorder were independent of reduction in the symptoms of ADHD, but this needs replication.

Other pharmacological approaches for antisocial behaviour have tended to target reactive aggression and overarousal, primarily in highly aggressive adolescents in psychiatric hospitals. Medications used for these conditions include mood stabilisers (e.g. lithium and carbamazepine) and drugs purported to target affect dysregulation (e.g. buspirone and clonidine). Some studies have reported that lithium reduced aggression and hostility in children and adolescents in psychiatric hospitals (Campbell *et al*, 1995; Malone *et al*, 2000), but others have failed to show effectiveness in out-patient samples (e.g. Klein, 1991) and with treatment of shorter duration (2 weeks or less; Rifkin *et al*, 1997). In a double-blind placebo-controlled study (Cueva *et al*, 1996) carbamazepine failed to outperform placebo. A placebo-controlled randomised trial of stimulants plus placebo *v.* stimulants plus clonidine found that the latter combination was more effective in children with aggression and hyperactivity (Hazell & Stuart, 2003). However, it should be noted that polypharmacy carries increased risk of side-effects (Impicciatore *et al*, 2001).

In the past few years, the use of antipsychotics such as risperidone and clonidine in out-patient settings has been increasing. However, there is only modest evidence for their effectiveness in conduct disorder in children of average IQ without ADHD. The review by Pappadopulos *et al* (2006) found that antipsychotics were more effective where ADHD or intellectual disability was present. Findling *et al* (2000), in a small ($n=10$ per group) double-blind placebo-controlled study, found significant short-term reductions in aggression. The Risperidone Disruptive Behavior Study Group used a placebo-controlled double-blind design to study the effects of risperidone in 110 children of below-average IQ with conduct problems. Results suggest that risperidone gives significant improvements in behaviour over placebo (Aman *et al*, 2002; Snyder *et al*, 2002), but it remains unclear whether the same findings would apply to children of average or above-average IQ.

Even the newer (atypical) antipsychotics, although not especially sedating, have substantial side-effects (e.g. risperidone typically leads to considerable weight gain), and the risk of movement disorders with long-term use is unknown.

So when might the use of antipsychotics be contemplated? My own clinical experience with children and adolescents suggests that they can dramatically reduce aggression in some cases, especially where there is poor emotional regulation characterised by prolonged rages. Prescribing antipsychotics for relatively short periods (say up to 4 months) in lower doses (say no more than 1–1.5 mg risperidone per day) can help families cope. During this time it is crucial to introduce more effective psychological management. Nevertheless, these drugs are not recommended in anything other than unusual circumstances.

Conclusions

Psychological therapies are the mainstay of treatment for conduct problems. However, despite the strong evidence base, in both the USA and the UK only a minority of affected children receive any treatment, and even fewer receive evidence-based interventions. Furthermore, the effectiveness of these interventions as practised in community settings tends to lag behind documented efficacy in controlled trials (e.g. Curtis *et al*, 2004). As can already be seen in recent efforts with many of the interventions described here, the next generation of evidence-based treatments for conduct problems should pay much greater attention to dissemination, including strategies for ongoing training and supervision of practitioners to ensure treatment fidelity. The ultimate goal, of course, is to ensure that children and adolescents with these disorders have access to high-quality, evidence-based care.

Declaration of interest

None

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MCQs

- 1 Parent training for childhood conduct problems:
 - a when successful in the home also leads to reliable change at school
 - b is less effective given in group than in individual sessions
 - c has RCT results attesting to its effectiveness
 - d improves the child's behaviour but not parent-child relationships
 - e encourages parents to show their true emotions to their child when they are annoyed.

2 Cognitive-behavioural therapy for conduct problems in children and adolescents:

- a is ineffective for children under 8 years of age
- b is especially effective in large-group therapy
- c solely focuses on the child's distorted cognitions
- d is effective after one or two sessions
- e typically includes social skills training and anger management.

3 School-based interventions for antisocial child behaviour:

- a are applicable only to children who misbehave in class
- b primarily focus on the inhibition of inappropriate behaviours
- c typically involve making 10–12 rules in the classroom so the children know what is expected of them
- d have a strong focus on promoting positive behaviour in the classroom
- e are particularly successful when the pupil is sent to the head teacher's office.

4 In functional family therapy for teenage antisocial behaviour:

- a it is crucial that all family members are present
- b the therapist must understand the parents' goals before specific techniques are taught
- c is based on Milan systemic therapy
- d typically lasts 20–25 sessions

- e focuses purely on the family as a system, and is predicated on the idea that the child will improve if the system improves.

5 In multisystemic therapy for teenage delinquency:

- a assessing and promoting the strengths in the young person and the system is very important
- b clinicians in the team usually take on up to 10 cases
- c outcome studies find that replications independent of the programme developers are highly effective
- d the intervention is more effective in North America than in Europe
- e effectiveness should not be assessed until at least 3 months have elapsed.

MCQ answers

1	2	3	4	5
a F	a F	a F	a F	a T
b F	b F	b F	b T	b F
c T	c F	c F	c F	c F
d F	d F	d T	d F	d F
e F	e T	e F	e F	e F

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Advances

An update on interventions for conduct disorder

Stephen Scott

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