

SUMMARY

Background

Supporting children who might be deemed to have ‘emotional or behavioural difficulties’ (EBD) or ‘social, emotional and behavioural difficulties’ (SEBD) within mainstream classrooms raises interesting issues for the intersection of behaviour management policies, inclusive schooling and the drive for raising academic standards. The term EBD is a broad label which has been used to group a range of more specific difficulties, such as behaviour which interferes with a child’s own learning or the learning of their peers; signs of emotional turbulence (e.g. unusual tearfulness, withdrawal from social situations); and difficulties in forming and maintaining relationships. Definitions of EBD are contested and there is a need to consider the role that societal, family and school environments plays in creating and ameliorating children’s social, emotional and behavioural problems.

Many different strategies for teachers to support children have been advocated. A variety of groups are likely to have an interest in which of these strategies are effective, for whom, and in which circumstances: school staff (e.g. teachers, special educational needs co-ordinators), parents, and children themselves. This document reports on a systematic review of research to assess what is known about the effectiveness of different strategies relevant to supporting children with EBD in mainstream primary classrooms to facilitate teaching and learning for all children. The review and choice of topic grew out of a series of workshops and seminars held at the National Foundation of Educational Research (NFER) in England in 1999 to explore methods for systematic reviews of educational research. It was carried out as a collaborative effort between the NFER and the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) at the Social Science Research Unit, Institute of Education, University of London.

Review question and scope

This review aimed to summarise existing research findings to answer the following question to inform policy and practice:

What are effective strategies to support primary-aged pupils with emotional and behavioural difficulties in mainstream classrooms?

The intended population focus of our review was primary-aged children and the setting focus was classrooms within mainstream, rather than special, schools. However, our focus was not on special classrooms (e.g. resource rooms) within mainstream schools. The population scope of our review covered children whose behaviours or emotional difficulties were not so extreme that they could not be taught in mainstream classrooms, but were sufficiently frequent to require specific interventions from teachers or other adults so that they could remain in the mainstream classroom.

We were interested in strategies that could be implemented by primary school teachers either working on their own or in collaboration with other school staff to support children to remain in mainstream classrooms. Our review was not concerned with strategies using drug or psychiatric treatments, but with strategies which provide children with information, social support, or skills training. Our intended intervention scope also covered strategies which involved making changes at the whole class level (rather than individuals within classes) and to the physical or social organisation of the classroom.

Our review was concerned with studies evaluating the outcomes for children of the above types of strategies (outcome evaluations).

Methods

An advisory group of 13 members was formed, including researchers, academics and practitioners with an interest in EBD and academics with experience in conducting systematic reviews of social interventions. Potential users of the review are primary classroom teachers, Special Educational Needs Co-ordinators (SENCOs), heads and deputies, advisers and educational psychologists, parents and school governors, school students with and without EBD, policy-makers and researchers. Not all of these users were represented on our advisory group. In particular, teachers, parents and children themselves were not represented. This is a limitation of the review.

We searched for outcome evaluations through six bibliographic databases using a wide range of terms for 'emotional and behavioural difficulties' combined with terms for 'classroom strategies'. These searches were supplemented by handsearches of 27 journals, scanning the reference lists of already identified relevant studies and through requests for papers to researchers and experts in the field of EBD. We excluded studies which evaluated strategies for general discipline problems; involved children in mainstream schools who were taught entirely in special classes (e.g. resource rooms); did not report the full results of an evaluation; or did not report on outcomes for children. We also excluded studies not published in the English language.

A standardised set of data-extraction guidelines was applied to the outcome evaluations meeting the criteria set out above. These guidelines coded studies according to the type of classroom strategies they evaluated and the characteristics of children studied. The guidelines also enabled reviewers to record in detail the methodological attributes of the studies and their findings. Methodological quality was determined by using previously developed criteria to assess to what extent studies had reduced the possibility of bias in their findings. Two reviewers undertook these stages of the review independently and any disagreements were resolved through discussion. Findings of studies were synthesised according to the theoretical framework which underpinned the strategies evaluated and the types of behaviours associated with EBD which they aimed to address.

Results

The search strategies yielded a total of 265 citations and full reports were obtained and processed for all of them. A total of 96 reports were identified to be within the scope of the review. Only 48 of these described primary research, of which 27 reported in full outcome evaluations of the effects of strategies for supporting primary aged pupils with EBD in mainstream classrooms. One of the 27 described two outcome evaluations and therefore the total number of outcome evaluations identified was 28. There appears to be only a small amount of primary research activity that describes itself as evaluating the effectiveness of strategies for supporting children with EBD in mainstream primary classrooms.

Description of research activity in this area

Very few of the studies we identified were carried out in the UK (n=4). Most of the studies evaluated strategies in the US (n=18). A handful of studies were conducted in other European countries, Australia or Canada (n=6).

Types of strategies and behaviours targeted

The kinds of strategies that have been evaluated by the studies we identified for inclusion in this review were underpinned by three main underlying groups of theoretical models. These are **behavioural** models, based on learning theory, which suggests that there is a linear relationship between behaviour and its outcomes for an individual; **cognitive behavioural** models, which are an elaboration of learning theory to take account of the capacity of individuals to understand and reflect on their behaviour; and **systemic** models which take account of the organisational context within which inappropriate behaviour occurs and attempt to change behaviour by modifying the context. The majority of the outcome evaluations we identified evaluated strategies based on behavioural or cognitive behavioural strategies (n=11 and n=14 respectively). Few evaluated strategies based on systemic models (n=4).

These strategies were used to target four main groups of behaviour associated with EBD. The majority of studies evaluated strategies targeted towards either off-task behaviour or disruptive behaviour. The types of **off-task behaviour** targeted included behaviours such as not engaging in the work set by the teacher, fiddling with pencils and other equipment, or wandering round the classroom. The types of **disruptive behaviour** targeted included calling out in class, interfering with others' possessions, or talking to others and disturbing their work. All three types of strategies outlined above have been evaluated for their success in targeting these behaviours. Fewer studies evaluated strategies focused on aggressive behaviour or socially inadequate behaviour. **Aggressive behaviour** was characterised as including behaviours such as arguing, fighting, or name-calling. **Social difficulties** were characterised as including inappropriate attempts to engage with peers, refusal to engage with peers or adults. Our included studies only evaluated strategies based on cognitive-behavioural and systemic models to target these behaviours.

We found no completed studies which had evaluated strategies based on a **psychotherapeutic** model. These are based on theories of parent-child relationships. Strategies based on this approach, such as 'nurture groups', are increasingly being used in primary schools. Properly designed evaluations of this

approach would provide information for schools, parents and children on whether or not they are effective.

Although the majority of our included studies evaluated strategies implemented by teachers, these sometimes involved assistance from other providers such as peers, parents or psychologists. This raises interesting questions about the level of additional support teachers might need to assist pupils with EBD. The length of time teachers had to spend implementing strategies also varied, raising questions about how much time teachers have to spend to achieve success.

There was little evidence within the studies identified for this review of a shift away from seeing emotional and behavioural difficulties as problems located *within* individuals (the so-called 'medical model' of EBD) towards a more context-based approach, where behaviour is seen as a response to particular situations. There was also little sign within our studies of a greater focus on social justice and equal opportunities in framing the context within which support for pupils is offered. Indeed most studies were not framed in the context of supporting children at all, but were framed in terms of trying to reduce social or behavioural 'deficiencies'. Moreover, none of the studies consulted with children with or without the label EBD for their views on possible intervention strategies.

Types and quality of studies employed to evaluate strategies

A variety of research designs have been employed by researchers to evaluate strategies. Trials appeared to be the least popular design employed by the studies we identified. Just under one-third of the studies (n=9) employed a control or comparison group as part of their evaluation design. Six of these used random allocation of children or groups of children to either receive the strategy or to a control or comparison groups, whereby the likelihood of each child or group of children receiving the strategy was determined purely by chance. More popular were 'one group' designs (n=19) in which the intervention was evaluated solely with the group of children receiving it. Eight of these used a reversal design, which involves one child or several children for whom outcomes are measured during a baseline period, an intervention period, and then a period when the intervention is withdrawn. These latter designs are best suited to examine immediate rather than long-term effects of interventions.

The size of the samples which were used in the studies is of particular concern. Nearly half of the outcome evaluations used a sample size of less than 10 children. Only four studies had sample sizes of more than 100.

We assessed all studies according to the extent to which their design and implementation could reduce bias and therefore increase our confidence that findings about the success or failure of strategies were accurate. We assessed studies according to the following sources of bias: **selection bias** in which experimental and control groups in a trial are not equivalent or, in a reversal design, if scores do not revert towards baseline when the reversal takes place; **bias due to loss to follow-up** where some children are lost to the study due to attrition; and **selective reporting bias** in which data on *all* outcome measures, as defined at the start of the study, are not reported.

Using these criteria, 10 of the included studies were judged to have low risk of these sources of bias and thus were deemed to be methodologically 'sound'. Therefore more reliance can be placed on findings from these studies, than on the findings from the other 18, which were not judged to be sound.

Which strategies are effective for supporting primary aged children with EBD in mainstream classrooms?

The following summarises what is currently known and not known from the studies we identified and included in this systematic review about the effectiveness of strategies for supporting primary-aged children with EBD in mainstream classrooms.

Strategies based on behavioural models

Four sound studies evaluated this type of strategy. Two were judged by reviewers to demonstrate positive effects. These were implemented with whole classes of children aged between seven- and 10-years old in the US and appear to be relatively simple for teachers to implement. Common to all was the provision of rewards such as minutes of free-time for play (sometimes with chosen peers) or listening to music for on-task and non-disruptive behaviour, and loss of rewards for off-task and disruptive behaviour. Teachers used visual aids such as graphs or symbols (e.g. smiley faces, red ribbons) to show children how well they were progressing towards receiving a reward. Reductions in off-task and disruptive behaviour amongst pupils with EBD were immediate and restricted to the period that the strategy was in place. Because of the whole class nature of these interventions, an element of peer support and pressure appears to be important for the success of these strategies.

Amongst the studies included in our review, other types of behavioural strategies have not yet been sufficiently evaluated. These were assertive discipline which comprised a package involving classroom rules posted for the whole class, reviewing these rules each day and the consequences of breaking them, and rewards for good behaviour; daily report cards sent to parents who are then responsible for determining rewards and sanctions; and training of teachers to increase the amount of praise they give to children.

Strategies based on cognitive behavioural models for disruptive or off-task behaviour

Strategies based on this model strive for longer-term changes and tend to require more intensive or longer intervention periods. Evidence for the effectiveness of this type of strategy for reducing off-task or disruptive behaviour was limited to one study in this review. This study showed that an eight-hour programme teaching children a self-instruction technique to monitor their own behaviour was effective amongst seven- to nine-year-olds in the US. This programme, taught by a researcher outside of the classroom, involved adult and peer modelling of the self-instruction; practising self-instruction and cueing to remind the children what they had been taught.

Based on the studies included in our review, other types of cognitive-behavioural strategies delivered by regular classroom teachers require further rigorous evaluation. These were a technique called 'responsive instruction' in which teachers are trained to engage children who demonstrate a lack of initiative in learning and playing through taking the child's perspective and challenging the child to take an active role; and a strategy which involved children learning how to recognise bad behaviour and the consequences of it. A further study highlighted the need for more work on whether complex packages involving several different strategies are more successful (e.g. peer tutoring combined with

social skills training, home-school communication systems and rewards and sanctions).

Strategies based on cognitive behavioural models for reducing aggression or improving social skills

The four sound studies which evaluated this type of strategy aimed to reduce what is defined as the root cause of aggressive or socially inappropriate behaviour: feelings of anger or poorly developed social skills. One study evaluated a strategy involving a ten-session counselling programme for aggressive nine- to 12-year-old boys and girls in the US in which a trained counsellor helped children deal with their feelings of anger and frustration. Another study evaluated a similar counselling programme for boys aged 11 years (also in the US), but this also contained a teacher-training element to develop an awareness of the issues these children were facing. A third study evaluated a strategy consisting of a 20-week social skills training programme for eight- and nine-year-old children in Australia. The fourth study evaluated a strategy named 'role-reversal' in which seven year old aggressive boys in the US were trained to monitor others disruptive behaviour. All four studies showed positive effects of these strategies immediately after the intervention but none showed long-term effects.

Due to the small number of sound studies, it is not possible at the present time to build up a detailed picture of the essential components of cognitive-behavioural strategies for supporting children with EBD in mainstream classrooms. Different types of cognitive-behavioural strategies were evaluated in the studies included in this review (e.g. training in conflict resolution; teaching children to value each other and raise each other's self-esteem), but they require more rigorous evaluation.

Strategies based on systemic models

This review found evidence from only one sound study about the effectiveness of these types of systemic strategies. This study was carried out in the UK and demonstrated that changing the seating arrangements in classes from groups to rows had a positive impact on time on task, particularly for the most distractible pupils.

'Circle time' is another strategy based on a systemic model, which is widely used in schools for dealing with whole-class issues, including problem behaviour. No sound studies of 'circle time' were found, although one study was included in the review. Properly designed evaluations of this approach would provide information for schools, parents and children on whether or not they are effective.

Factors which may relate to successful implementation

Seven studies included a process evaluation which examined factors relating to the implementation and acceptability of strategies. Views were sought from children, teachers or other providers on their experiences of the strategies. For teachers, the simplicity and acceptability of a particular strategy; consistent implementation by teams of teachers across the school; and avoidance of implementing strategies in 'top-down' fashion were important for a strategy's successful implementation. Children's views on interventions indicated that consulting and listening to children were important for ensuring the acceptability

of a particular strategy and in highlighting the differences between their definitions of a successful strategy compared with teachers or researchers.

Implications

Based on the studies included in this review, the evidence-base for recommending effective strategies that teachers could draw on to support pupils with emotional and behavioural difficulties in mainstream classrooms is limited. However, because of the definitional problems associated with EBD, it is likely that our search strategies missed studies which would have met the inclusion criteria for this review. Our searches were designed to identify literature described as being focused on EBD rather than the overlapping literatures on aggression, conduct disorder or violence prevention. The studies in this review therefore represent a particular slice of all potentially relevant literature and our conclusions must be interpreted within this context. In addition, there was a bias towards finding studies in educational and psychological journals in our search strategy, and this may have limited the range of theoretical models underpinning the strategies evaluated by the included studies.

Within the context of the above limitations, the following strategies have been shown to be effective by at least one sound study included in this review:

- **Behavioural strategies using token systems for delivering rewards and sanctions to either the whole class or individuals within a whole class are effective for reducing behaviour which is disruptive to children's own or others' learning in the mainstream classroom. Positive effects are immediate and restricted to the period of intervention delivery. Such strategies should attempt to incorporate some element of peer support and pressure.** Based on two sound studies with boys and girls aged seven to ten years in the US identified as disruptive or having emotional and behavioural difficulties.
- **A relatively short cognitive behavioural programme, delivered outside of the classroom by a researcher to train children in self-instruction, can reduce behaviour which is disruptive to their own or others' learning when they return to the mainstream classroom. These reductions can be sustained over time.** Based on one sound study conducted in the US with a sample of 55 boys and girls aged seven to nine exhibiting off-task behaviour.
- **Multi-session interventions delivered by specialised personnel to help children cope with anger can produce short-term reductions in aggressive behaviour.** Based on two sound studies conducted in the US with aggressive boys and girls aged between nine and 12.
- **A multi-session social skills programme delivered by regular classroom teachers can produce short-term positive effects on social skills, but such effects have not been shown to be maintained in the long term. It has not been demonstrated that this type of intervention can show any reduction in the incidence of childhood emotional problems.** Based on one sound study conducted in Australia with boys and girls aged nine to 12 years.

- **Changes in the seating arrangements in classrooms from groups to rows has an impact on time on task, and this impact is most marked for the most easily distracted pupils.** Based on evidence from one sound study carried out in the UK with boys and girls aged seven to eight.

The gaps in the evidence-base we uncovered are important as they can provide a focus for more strategic commissioning of future primary research. Bearing in mind that we are likely to have missed some studies from the literatures on aggression, conduct disorder and violence prevention, it is recommended that the following strategies need further evaluation:

- **variations in strategies based on a behavioural model (e.g. assertive discipline, the use of daily report cards or training teachers to use praise);**
- **variations in strategies based on a cognitive behavioural model (e.g. responsive instruction, packages of behaviour management programmes or teaching children how to recognise ‘bad’ behaviour and the consequences of it);**
- **strategies based on a systemic model, for example, ‘circle time’;**
- **strategies based on a psycho-therapeutic model, for example, ‘nurture groups’.**

It is also unclear whether some strategies are more effective than others or whether strategies delivered by teachers are more effective than those delivered by other professionals. In particular, more work is needed to examine:

- **whether strategies delivered solely by classroom teachers (either to the whole class or individuals within a whole class) are more or less effective than those delivered with the support of other professionals;**
- **whether cognitive behavioural strategies are superior to behavioural strategies or vice versa for reducing off-task or disruptive behaviour.**

Given this lack of clarity about the effectiveness of a number of widely-used strategies:

- **We recommend that practitioners and researchers work in partnership to carry out rigorous studies of the strategies currently used. Such partnerships need to actively include children and their parents.**

A number of recommendations can also be made about how research on the above issues should be carried out.

Some of the studies we reviewed did not use a research design that was appropriate to the outcomes that were expected from the intervention.

- **We recommend that reversal designs are only used to evaluate interventions which are expected to produce change when an intervention is in place (e.g. those based on a behavioural model).**

For interventions which are seeking changes to be maintained when an intervention has stopped, **we recommend that study designs involve:**

- **more than one group so that one group receiving the intervention under evaluation can be compared to a group not receiving the intervention;**
- **random allocation of children or classes or schools to intervention and non-intervention groups;**
- **careful attention, when random allocation is not possible, to obtaining groups that are matched on socio-demographic characteristics and levels of emotional and behavioural problems;**
- **more effort to obtain measures of outcome over the long term, potentially into adolescence and even adulthood, when appropriate. This will depend on the aims of the intervention.**

For the evaluation of any type of strategy we recommend that:

- **More attention is paid to using sample sizes large enough to ensure that studies have are adequately powered to detect the effects of classroom strategies.**

More attention needs to be paid to researching reasons why strategies work (or do not work).

- **We recommend that process evaluations be undertaken to ascertain the views of participants (teachers, children and parents) about the strategies used.**

Consideration should also be given to ethical issues in conducting research 'with' rather than 'on' children.

We recommend the following:

- **Children should be respected and valued in the same way as any other social group participating in research.** Their views and experiences should be considered as a valuable resource for the development of interventions.
- **Children, parents and other stakeholders should be involved in planning the evaluation of interventions.** Their views will be valuable in determining relevant and appropriate data-collection methods, tools and topics, and in determining outcomes to be measured.

It is impossible to assess the reliability of the results of evaluation studies unless there is a clear description of the methods used for the evaluation.

- **We recommend that full details of research methodology be given in research reports. Publications should also make this information available, either in the published paper, or as a technical appendix available from the authors.**