



## Mental wellbeing of children in primary education (targeted/indicated activities)

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University of Teesside - a NICE National Collaborating  
Centre

July 2007

Janet Shucksmith  
Carolyn Summerbell  
Susan Jones  
Vicki Whittaker

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## Executive Summary

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This report examines the evidence for the effectiveness of targeted/indicated activities aimed at promoting the mental wellbeing of children in primary education. The definition of 'mental wellbeing' used in the scope was that set out in *'Monitoring positive mental health'* (NHS Scotland 2006). Outcomes are measured using indicators and scales relating to the main aspects of mental wellbeing shown below:

- emotional wellbeing (including happiness and confidence, and the opposite of depression)
- psychological wellbeing (including autonomy, problem solving, resilience, attentiveness/involvement)
- social wellbeing (good relationships with others, and the opposite of conduct disorder, delinquency, interpersonal violence and bullying).

Specific research questions for this rapid review were:

- What aspects of targeted/indicated activities are particularly effective in promoting the mental health of children and young people (aged 4–11 years old) in primary schools?
- What content is most effective?
- What is the frequency, length and duration of an effective intervention?
- Is it better if teachers, school support staff, or a specialist (such as a psychologist or school nurse) delivers the intervention?
- What is the role of governors?
- What is the role of parents?
- What are the barriers to – and facilitators of – effective implementation?
- Does the intervention lead to any adverse or unintended effects?

Primary, peer reviewed research studies were included in this rapid review if they were written in English after 1990 and undertaken in developed countries. Studies to be included had to focus on primary age children between 4 and 11 years of age and to show a targeted approach (on a group at risk) or an indicated approach (on a group already identified as having problems). Studies were included if they were randomised, controlled, and provided that the intervention focused on behaviours that were intended to produce outcomes related to improvements in mental wellbeing (see definition above). A broad definition of 'school involvement' was taken, so that interventions could reflect both the import of other professional skills into classroom/school settings, as well as the development by teachers and school personnel of skills that could be used in mental health improvement interventions.

Primary studies were excluded if they did not cover any of the above and/or covered the following exclusion criteria:

- interventions that lasted less than one month
- interventions that took place entirely in clinic settings out of school or at home
- interventions that focused on pharmacological treatment.

Interventions that were targeted at whole class level were reserved for study by the team at the University of Warwick.

Thirty two primary research studies met the inclusion criteria. Interventions were categorised in relation to the types of disordered behaviour that they targeted (following ONS classification schema) as well as by the type of treatment and intervention offered.

The following categorisation was used for disordered behaviour:

- Internalising behaviours (emotional disorders)
  - Anxiety disorders e.g. separation anxiety, social phobias
  - Mood disorders, e.g. depression, bipolar disorder
- Externalising behaviours (conduct and hyperkinetic disorders)
  - Oppositional defiant disorder (ODD)
  - Conduct disorder (CD)
  - Attention deficit hyperactivity disorder (ADHD)

Evidence for school-based treatments or interventions aimed at less common disorders (e.g. autism, tics, eating disorders, as in ONS classification) did not meet inclusion criteria in terms of school-based interventions, and were thus removed at the initial screening.

Intervention strategies covered a range including training in coping skills, stress management, training in self monitoring, normative peer work and mentoring, but there was a strong thread running throughout the programmes emphasising the techniques of cognitive behavioural therapy and the need for social skills training.

Interventions were examined that were solely child-focused and also those that were focused on child and supporting adults (parent and/or teacher). A number of marker interventions were multi-component and complex.

Findings were presented first in relation to the primary categorisation relating to the type of disordered behaviour targeted or indicated. Within each section the effectiveness of the different types of intervention strategy used was examined and the research questions used to interrogate the findings and identify gaps in knowledge.

Findings showed that in relation to:

### **Internalising behaviours**

#### *Evidence Statement 1: Anxiety disorders*

CBT-based programmes targeted at reducing anxiety disorders have been transferred successfully between countries, indicating a high degree of generalisability of applicability.

Two studies (both quality rated 1++) show that brief (10 weeks and 9 weeks) targeted interventions aimed at reducing anxiety or preventing the development of symptoms into full blown disorders appear to be successful in groups of children showing the precursor symptoms associated with anxiety disorders.

One study (quality rated 1++) was able to demonstrate that when parent training is combined with child group CBT there are additional benefits for children.

Two studies (quality rated 1++) of *indicated* interventions aimed at children of divorce and children who are anxious school refusers show sustained benefit for children from CBT-based skills training.

#### *Evidence Statement 2: Mood disorders*

All studies examined use CBT based approaches.

One study (quality score 1+), the Penn Prevention Programme, showed that it may be possible to relieve and prevent depressive symptoms using a targeted school-based approach where a traditional cognitive behaviour component was allied with a social problem-solving component.

Evidence from other treatment programmes with children with mild to moderate depressive symptoms is mixed. Co-morbid conditions with depression (often expressed in conduct or hyperkinetic disorders) make intervention delivery difficult and can confound treatment effects. However, generalisability is increased if effect can be shown in studies that do not exclude children with co-morbid symptoms.

One study (quality rating 1+) attempted to see whether a brief intervention (8 weeks) was as effective as a longer programme in producing improvements in depression scores. The trial was judged effective, but this was a non-diagnosed sample.

Interventions directed at indicated subgroups show some degree of success. A study (quality rating 1+) of young people exposed to violence showed reasonable effect sizes. The programme involved a high proportion of BME children and also used trained school personnel to deliver part of the programme.

#### **Externalising behaviours**

#### *Evidence Statement 3: Attention Deficit Hyperactivity Disorder*

Two studies (quality rating 1++ and 1+) both describe multi component interventions that are based on CBT, one aimed at ADHD children/young people, the other at up-skilling teachers to spot ADHD symptoms and respond appropriately. Neither study reported any significant degree of success. It is hypothesised that this failure may reflect the co-morbidity of ADHD with other conduct disorders, despite its possibly different neurological basis.

#### *Evidence Statement 4: Conduct disorder and oppositional defiant disorder*

Interventions focused solely at young people have used peer norming and negative attribution reversal techniques. They report modest effects and their impact tends to fade over periods of time.

Two studies (quality rating 1++ and 1-) report that peer mentoring or 'buddying' of aggressive with non-aggressive children may yield important gains for the former group in terms of developing their prosocial skills and social standing.

### *Evidence Statement 5: Multi-component approaches*

Given the intensive and often lengthy nature of the interventions described in some multicomponent programmes, gains would appear to be modest rather than startling at end of intervention and even at follow up.

Social problem solving and the development of positive peer relations are among the outcomes with the strongest programme effects.

Two studies (both rated 1++) showed improved academic achievement as significant outcomes of intervention.

Timing may be critical. Complex longitudinal multicomponent studies like that undertaken by the Metropolitan Area Child Study Research Group (quality rating 1++) support the case for early intervention with aggressive disruptive children but also attest to the improved benefits of giving a booster intervention towards the end of primary education.

Significant 'school effects' were found in the Metropolitan Area Child Study Research Group (quality rating 1++) study. Better understanding of school effects, including impediments and resources, is called for.

Recruitment into parent programmes (and retention thereafter) is clearly a major challenge, even when every effort is made to make access easy. Given a choice, evidence from Waschbusch *et al* (quality rating 1++) indicates that parents may prefer targeted children to be treated at school rather than at home.

Some adverse effects are reported by Metropolitan Area Child Study Research Group (quality rating 1++) in terms of bringing aggressive hostile children together in small groups in later elementary stages. There is a suspicion (reinforced by other literature) that such settings may actually provide 'deviancy training' that provides reinforcement for aggression.

### **Information gaps, exclusions and caveats**

There are very noticeable shifts in quality and focus of evidence as we look across the period under scrutiny here. The period prior to 1990 (our start point) and the early 90s themselves saw a proliferation of small-scale studies (mostly US based). The literature only recently starts to report the 'long game' of programme interventions and evaluations and evidence over the whole piece is still lacking, not least because a fundamental aspect of many of the programmes is to 'start early' (at kindergarten level) and wait for 'sleepers' effects, as children emerge into adolescence and mental health problems begin to become manifest in more serious delinquency.

### **Generalisability to the UK**

The majority of the included studies were US based. This may limit the applicability of findings to UK settings where legislative, educational and healthcare systems vary considerably, but some interventions may have applicability and this is indicated in the text. Interventions from earlier in the period studied here tend to have experimental designs utilising imported clinical staff to deliver small-scale interventions to small samples of children. Their applicability to real

life classroom settings is therefore suspect on several levels. Later studies (almost exclusively in the US) have seen the investment of massive sums of money in large multi component longitudinal trials. The results that emerge from these are very useful and are showing the way towards the design of more effective interventions, yet there must be serious doubts as to the availability of such resources within normal education budgets.

## Section 1: Introduction

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### 1.1 Background to this review

This review was undertaken to support the development of NICE guidance on promoting the mental well being of children in primary education. It aims to provide a systematic review of the published literature on the effectiveness of school based interventions that aim to promote mental wellbeing amongst children in primary education that:

- take a targeted and indicated approach, and
- are not primarily focused on the prevention of violence or bullying.

Other related reviews supporting this NICE guidance will assess the effectiveness of:

- whole school/universal interventions, and
- interventions that focus primarily on the prevention of violence and bullying.

In addition work is being undertaken to examine the cost effectiveness of these different interventions and approaches.

The National Institute for Health and Clinical Excellence ('NICE' or 'The Institute') was asked by the Department of Health (DH) to develop guidance on school-based interventions aimed at promoting good mental health among children aged 11 and under. This guidance is intended to provide recommendations for good practice, based on the best available evidence of effectiveness, including cost effectiveness. It is aimed at teachers, school support staff and school governors. It is also aimed at others working with – or responsible for – children and young people. This includes professionals with a public health remit working within the NHS, local authorities (in particular, school and children's advisory services) and the wider public, private, voluntary and community sectors.

For the purposes of this guidance mental health has been defined broadly - following the definition of 'mental wellbeing' used in '*Monitoring positive mental health*' (NHS Scotland 2006) - which sees mental health being comprised of:

- emotional wellbeing (including happiness and confidence, and the opposite of depression)
- psychological wellbeing (including autonomy, problem solving, resilience, attentiveness/involvement)
- social wellbeing (good relationships with others, and the opposite of conduct disorder, delinquency, interpersonal violence and bullying).

### 1.2 The need for guidance

The scope points out that:

- there is limited national data on how to promote mental wellbeing among children of primary school age



- in 2004, one in ten (10%) children and young people aged 5–16 had a clinically diagnosed mental disorder (ONS 2004). Older children (aged 11–16 years) were more likely than younger children (aged 5–10) to have a mental disorder (12 % compared with 8%)
- research indicates that mental health problems among young people increased between 1974 and 1999 (Collishaw *et al* 2004). However, the most recent national survey of 5–16 year olds suggests that this upward trend was halted during 1999–2004 (ONS 2004)
- in 2004, boys were generally more likely to have a mental disorder than girls, and the prevalence of mental illness was greater among:
  - children in disrupted families (lone parent, reconstituted)
  - children with parents who have no educational qualifications
  - children from poorer families and those living in disadvantaged areas (ONS 2004)
- data on the levels of mental disorder among children of different ethnic groups is difficult to interpret. However, children aged 5–10 who are white, Pakistani or Bangladeshi appear more likely to have a mental health problem than black children. Indian children are least likely to have a mental health problem (ONS 2004)
- looked after children aged 5–10 were at least five times more likely than children in the general population to have mental health problems (42% versus 8%). Among 11–15 year olds, the contrast was slightly less marked (49% versus 11%), (ONS 2004).

### 1.3 Scope of the reviews

#### *Groups that are covered*

The review covers interventions aimed at children aged 4–11 in primary education. Establishing mental wellbeing has important consequences for social and educational attainment at primary school age but also later in the school career. It can also help to avoid behavioural problems later in life (Kuh *et al* 1997; Graham and Power 2003). These children will include those attending:

- state sector maintained schools and independent schools
- special education environments.

#### *Groups that are not covered*

The review will exclude interventions aimed solely at children aged over 11 years and children not in school.

#### *Areas that are covered*

The interventions/activities considered in the review will focus on primary schools and cover indicated and targeted activities.

Indicated and targeted activities focus on particular types of behaviour or particular groups of pupils. They address the factors likely to lead to poor mental health or mental disorders. They may include ways of identifying children at particular risk. A variety of methods are used including: programmes to help children make the transition to primary or secondary school, lessons taught as part of the curriculum, changes in school ethos and the environment, or activities involving the family and/or community. It may involve specialist in-house services or health, social or specialist community services may be used.

#### *Areas that are not covered*

Interventions aimed at secondary school pupils (aged 11–18 years).

### 1.4 Research Questions

The primary research question specific to the indicated/targeted approaches rapid review was:

- What aspects of targeted/indicated activities are particularly effective in promoting the mental health of children and young people (aged 4–11 years old) in primary schools?

Subsidiary research questions were:

- What content is most effective?
- What is the frequency, length and duration of an effective intervention?
- Is it better if teachers, school support staff, or a specialist (such as a psychologist or school nurse) delivers the intervention?
- What is the role of governors?
- What is the role of parents?
- What are the barriers to – and facilitators of – effective implementation?
- Does the intervention lead to any adverse or unintended effects?

### 1.5 Outcomes of interest

Outcomes were measured using the definition of ‘mental wellbeing’ set out in *Monitoring positive mental health* (NHS Scotland 2006). Outcomes are measured using indicators and scales relating to the main aspects of mental wellbeing shown below:

- emotional wellbeing (including happiness and confidence, and the opposite of depression)
- psychological wellbeing (including autonomy, problem solving, resilience, attentiveness/involvement)
- social wellbeing (good relationships with others, and the opposite of conduct disorder, delinquency, interpersonal violence and bullying).

## 1.6 Review team

The Project Team for the review based at the NICE Collaborating Centre at the University of Teesside comprised:

Carolyn Summerbell  
Janet Shucksmith  
Susan Jones  
Vicky Whittaker

## Section 2: Methodology

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### 2.1 Literature search

The reviews were based on primary studies of evaluations using a trial design i.e. evaluation of intervention with control/comparison arm.

The literature search for the development of reviews was carried out in January 2007 by NICE Collaboration Centre for Information (the Centre for Reviews and Dissemination at York University-CRD).

#### *2.1.1 Effectiveness reviews searches*

A search strategy was developed by the NICE technical team, Warwick team and the CRD. A single search strategy was used for both reviews: the 'targeted' activities and the 'whole school' approaches. The search strategy used for Medline is provided in Appendix A as an example. The subject headings in this strategy were adapted accordingly for the other databases.

#### *2.1.2 Economics searches*

Any economics studies were identified from the search results for the effectiveness review by the researchers as part of the screening of results for the effectiveness reviews described above. In addition, the three economic databases specified below (section 2.1.3) were searched using the same search strategy.

#### *2.1.3 Databases searched*

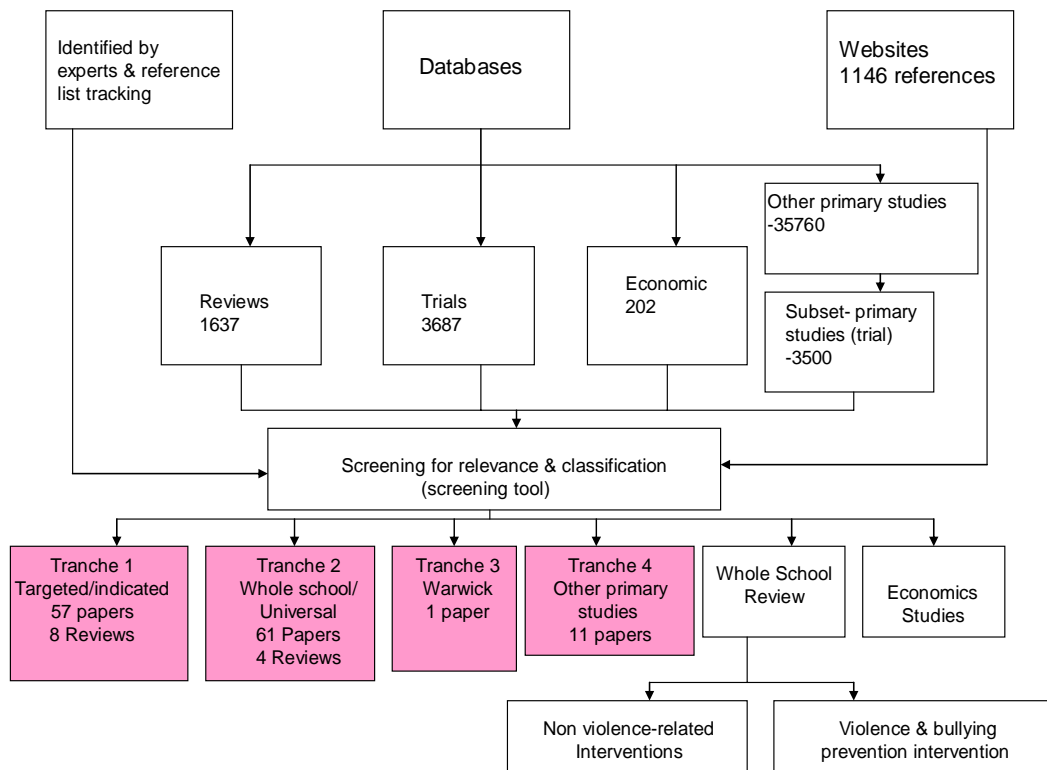
The following databases and websites were searched:

<i>Bibliographic databases</i>	<i>Websites</i>	<i>Economic databases</i>
MEDLINE EMBASE ERIC CINALH Sociological Abstracts ASSIA Psycinfo Cochrane Database of Systematic Reviews DARE CENTRAL SIGLE	CASEL EPPI Centre Community Guide-Guide to community preventive services Search Institute Joseph Rowntree Trust	Health Economics Evaluation Database (HEED) NHS EED (NHS Economics Evaluation Database) Econlit

#### *2.1.4 Search process*

Figure 1 shows the stages in the search process and number of reviews and studies identified at each stage.

Figure 1. Process of study identification



The initial search results were downloaded into Reference Manager in three separate databases of results categorised as trials, reviews and “other primary studies”. Duplicates were deleted in each of the databases. The filters used to identify trials and reviews are included in the search strategy above.

Two members of the NICE technical team screened titles and abstracts from the trials and reviews Reference Manager databases for relevance, using the screening tool (Appendix B). Any disagreements on relevancy of papers were resolved through discussion.

In addition a number of papers and reports were identified by the Warwick team and reference tracking.

Relevant systematic review papers were assessed in order to identify other relevant primary studies.

A number of issues were encountered during the electronic search, and the screening process. A small number of papers identified by the Warwick team and through reference tracking were found not to be included in the electronic search results for trials and reviews. Certain of these papers were found to be within the ‘other primary studies’ file, as titles and abstracts did not contain searched key words; others were papers that had not been indexed in the bibliographic databases.

The Reference Manager database with ‘other primary studies’ covered non trial evaluations and contained over 35,000 results. It was judged that potentially useful intervention papers which had not been formally categorised as trials or reviews were contained in this database. It was agreed that a subset of the “other primary studies” file should be identified, to pick up

relevant intervention studies. This search was done in Reference Manager using the following keywords in the title and abstract of studies:

- Intervention\$
- Strateg\$
- Initiative\$
- Program\$
- Evaluat\$
- Effect\$
- Impact\$.

## 2.2 Inclusion and exclusion criteria for this review

The volume of studies delivered from the original search or transferred from the work being done elsewhere was extremely large and seemed to include a large number of 'outliers' or irrelevant pieces. An additional sifting tool was developed (see Appendix C). The principal exclusion/inclusion criteria were thus as described below.

### *2.2.1 Population*

Studies were eligible for inclusion if they included children aged 4–11 in primary education settings. These settings included:

- state sector maintained schools and independent schools
- special education environments.

Studies covering children aged over 11 years and children not in school were excluded.

### *2.2.2 Interventions*

Studies were eligible for inclusion if they adopted targeted or indicated approaches. This review excluded studies that were concerned with whole school or universal interventions to promoting mental wellbeing of children; or interventions with the primary aim of preventing violence and bullying. Related reviews cover these types of interventions.

Studies of interventions aimed at secondary school pupils (aged 11–18 years) were excluded.

In addition the Teesside team introduced a duration criterion (studies describing interventions of longer than one month), as well as a more rigorous setting criterion, since it was clear that many targeted interventions had no connection with school other than being delivered to school aged children. The criteria for this was:

Studies describing interventions delivered to children by a teacher or another specialist:  
(setting criterion) (exclude if ONLY c, d or g)

- a) in classroom within school hours/normal curriculum
- b) in classroom outside school hours/extra to curriculum
- c) in clinic setting
- d) in child's home
- e) in a different school to their own
- f) in a separate room to their classroom
- g) outside school premises.

Two further criteria were introduced which helped to categorise the studies at an early stage rather than to exclude (see items 14 and 15, appendix C). One related to the level of school involvement in the intervention and interrogated the report as to whether the intervention simply imported skills from outside the school or whether school staff were developed and trained to deliver the programme. Interventions where children and their problems were simply exported off-site were deemed to lie outside the parameters of the review. The other criterion related to the target or focus of the intervention, i.e. whether it was targeted solely at children, at parents and children, at children and teachers or at parents and teachers and children.

### *2.2.3 Comparators*

Studies were eligible for inclusion if they compared the intervention of interest against 'no intervention' control, 'wait list control' or against another intervention approach.

### *2.2.4 Outcomes*

Studies were eligible for inclusion if they reported changes in aspects of mental wellbeing (as defined in *Monitoring positive mental health* (NHS Scotland 2006)).

This covers outcomes measured using indicators and scales relating to the main aspects of mental wellbeing below:

- emotional wellbeing (including happiness and confidence, and the opposite of depression)
- psychological wellbeing (including autonomy, problem solving, resilience, attentiveness/involvement)
- social wellbeing (good relationships with others, and the opposite of conduct disorder, delinquency, interpersonal violence and bullying).

### *2.2.5 Study Design*

Primary studies (RCTs and CRCTs) that compared a school-based intervention against no intervention, or another type of intervention aimed at promoting mental wellbeing among primary school aged children, were considered for inclusion in the assessment of effectiveness. Studies that were not randomised and did not include a control group for comparison were excluded.

Systematic reviews were considered for the purpose of identifying potentially relevant primary studies.

### *2.2.6 Volume of papers remaining after categorisation sift and reasons for rejections*

The table below shows the results of applying the combined categorisation and quality sifts.

Tranche	Included for review	Excluded from review	
Tranche 1 (original NICE search strategy papers)	36 papers (24 studies)	21 papers	
		<i>Reasons for exclusion:</i>	
		5 2 3 1 1 9	Topic criterion Age criterion Setting criterion Date criterion Targeting criterion Not RCT
	8 Reviews		
Tranche 2 (whole school approach reference list) 61 papers after de- duplication	10 papers (8 studies including 2 identified in Tranche 1)	51 papers	
		<i>Reasons for exclusion:</i>	
		4 6 3 16 1 14 4 1 1 1	Topic criterion Age criterion Setting criterion Targeting criterion Language criterion Not RCT Primary research criterion Quality Criterion Late Other
	Reviews		
Tranche 3 (sent on from Warwick)	1 paper	0 papers	
		Reasons for Exclusion:	
Tranche 4 Final search (other primary studies file) 11 papers after de- duplication	1 paper	10 papers	
		Reasons for Exclusion:	
		2 1 3 3 1	Late Not RCT Targeting Primary Research Other

Eleven reviews emerged through the various literature searches. One more came too late for consideration, but the other eleven were not treated as primary research studies but were



scanned to ensure that no significant references had been missed (Appendix F). They are listed in the reference section.

## 2.3 Data extraction strategy

Data relating to both study design and quality were extracted by one researcher and independently checked for accuracy by a second reviewer. Disagreements were resolved through consensus and if necessary by consultation with a third reviewer. This data is presented in the form of evidence tables at the end of this report. (Appendix G)

## 2.4 Quality assessment strategy

One reviewer assessed the quality of individual studies and a second reviewer independently checked the accuracy of the quality assessment. Disagreements were resolved through consensus and if necessary a third reviewer was consulted. The quality checklist is attached as Appendix D. The quality of the studies was assessed according to criteria set out in the NICE Centre for Public Health Excellence Methods Manual (with certain points of clarification with respect to evaluations relating to educational settings). There is considerable difference between small trials (with small sample sizes and simple controls) and the multicomponent complex interventions (with much larger sample sizes and a complex range of conditions to which children are assigned). Whilst the latter are obviously more sophisticated, it was judged appropriate to assess them for quality as 'of their kind'.

## 2.5 Assessing generalisability

Generalisability was assessed across each individual study by examining the population and intervention, and by referring to the political and structural similarities between each of these factors and practice and policy in the UK. Applicability of the included studies was rated using the following statements adapted from the NICE Methods Manual:

A	Approach likely to be applicable to similar population groups across a broad range of primary education settings and populations
B	Approach likely to be applicable to similar population groups across a broad range of primary education settings and populations, assuming appropriately adapted
C	Applicability to similar population groups is uncertain for reasons stated in evidence tables
D	Approach applicable only to the specific primary education settings and population groups included in the reviewed study.

For example although the majority of the evaluation trials evaluated here may have been conducted in countries other than the UK, the basic educational principles, structures and systems, such as curriculum-based educational methods, may be judged as relevant and transferable to the UK context. Consequently interventions may be categorised as A or B. Interventions rated C or D for applicability are interventions that are judged unlikely to be transferable due to lack of clarity, or conducted with groups or in specific settings that do not have an equivalent in the UK.

Of note, however, is the fact that these differ slightly from the categories used in the universal or whole school approach.

## 2.6 Methods of analysis / synthesis

The results of the data extraction and quality assessment for each study of effectiveness are presented in the evidence tables and described in the text of section 3. The tables are presented at the end of the report.

Forest plots were produced where interventions and outcome measures were judged as comparable. A random effects meta analysis using standardised mean differences was performed. Heterogeneity was assessed and meta analysis presented only where there was no significant heterogeneity ( $p < 0.05$ ).

The interventions evaluated by the studies were classified according to a typology of focus and aims.

## 2.7 Classifications of the interventions according to the focus and aim of the interventions

The studies covered a diverse range of interventions and approaches. These interventions were classified according to a primary typology (shown diagrammatically in Appendix E), and also according to subsidiary typologies which looked at aspects such as level of school involvement and target of the intervention, as well as intervention style or type. The primary typology was based on the symptomatology used to identify targeted or indicated groups as worthy of attention, and utilised the classification of mental disorders used by ONS (itself derived from ICD10 and DSM-IV diagnostic research criteria) to group and categorise problems, namely:

- Internalising behaviours (emotional disorders)
  - Anxiety disorders e.g. separation anxiety, social phobias
  - Mood disorders, e.g. depression, bipolar disorder
- Externalising behaviours (conduct and hyperkinetic disorders)
  - Oppositional defiant disorder (ODD)
  - Conduct disorder (CD)
  - Attention deficit hyperactivity disorder (ADHD).

Evidence for school-based treatments or interventions aimed at less common disorders (e.g. autism, tics, eating disorders, as in ONS classification) did not meet inclusion criteria in terms of school-based interventions, and were thus removed at the initial screening.

Intervention strategies covered a range including training in coping skills, stress management, training in self monitoring, normative peer work and mentoring, but there was a strong thread running throughout the programmes emphasising the techniques of cognitive behavioural therapy and the need for social skills training.

Interventions were examined that were solely child-focused and also those that were focused on child and supporting adults (parent and/or teacher). A number of marker interventions were multi-component and complex.

## Section 3: Findings

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This section sets out first to answer the primary research question (What aspects of targeted activities are particularly effective in promoting the mental health of children and young people [aged 4–11 years old] in primary schools?) using the typology/framework derived from the ONS classification of mental disorders. Subsequent sections interrogate the evidence using the subsidiary research questions.

### 3.1 Interventions focused on internalising behaviours or emotional disorders

Ten non-European (8 US; 2 Australia) based studies provide evidence for the effectiveness of interventions aimed to prevent or remediate emotional disorders in targeted or indicated primary school children.

#### 3.1.1 *Anxiety disorders*

Five studies were designed to prevent or provide early intervention for anxiety disorders.

Anxiety disorders (5 studies, 6 papers)		
Dadds		
Dadds MR <i>et al</i>	1997	1++
Dadds MR <i>et al</i>	1999	1++
Bernstein GA <i>et al</i>	2005	1++
King CA and Kirschenbaum DS	1990	1++
King NJ <i>et al</i>	1998	1++
Stolberg AL and Mahler J	1994	1++

Dadds *et al* (1997) report on the Queensland Early Intervention and Prevention of Anxiety Project (QEIPAP), a cognitive behavioural and family based group intervention. A sample of 1,786 7-14 year olds (from eight primary schools pre-selected to represent each of three levels of socioeconomic status) were screened for anxiety problems using teacher nomination and children's self report. After recruitment and diagnostic interviews, 128 children were selected and assigned to a 10-week school-based child-and parent-focused psychosocial intervention or to a control monitoring group. Some problems were encountered using the Revised Children's Manifest Anxiety Scale (RCMAS) as a screening tool, but this was combined with teacher report and careful screening out of co-morbidity with disruptive behaviour problems. A second screening stage involved face to face interviews with parents at which parents completed the child Behaviour Checklist (CBCL) and the Anxiety Disorder Interview Schedule for Children – Parent Version to produce a diagnostic formulation for each child in accordance with DSM- IV. Clinicians subsequently rated the severity of the children's symptoms on an 8-point rating scale. Children with the most severe scores were referred for individual treatment and not included in the study. Qualifying children were allocated either to an intervention or to a monitoring control group on the basis of school attended. Schools were matched for size and demographics and randomly allocated to condition.

The intervention was based on the Coping Koala Prevention Manual (Barrett *et al* 1994), an Australian modification of the Coping Cat anxiety program originally developed in the US by Kendall (1990). Coping Koala is a CBT programme that teaches children strategies for coping

with anxiety within a group format, using the FEAR plan in which each child develops and implements his/her own plan of graduated exposure to fear stimuli using physiological, cognitive and behavioural coping strategies. Group processes are used to help children learn positive strategies from each other and to reinforce individual efforts and change. The intervention was delivered to children in 10 weekly sessions at each intervention school. Leaders of the groups were clinical psychologists assisted by postgraduate students. Parents also met in groups in weeks 3, 6 and 9 led by a subset of the same group leaders.

After the intervention (and again after 6 months) parents completed the CBCL and children completed the RCMAS. Clinicians not informed of intervention status also conducted telephone interviews with parents and used a variety of diagnostics to arrive at a global score.

Curiously, immediately post test, there were no significant differences between intervention and control groups, but, as a group, children who received the intervention emerged with lower rates of anxiety at 6 months follow up compared with those who were identified but monitored only. Significantly, of those children who at pre-intervention had shown early signs or features of a problem but did not have a full-blown disorder, 54% in the monitoring group progressed to having a diagnosable disorder, compared to only 16% in the intervention group. The authors point out that it is not possible to be clear what characteristics of the intervention were responsible for its success. Several other features of the study are noteworthy: the low concordance between teacher reports and children's self reports; the difficulty of separating children with anxiety disorders from those with ADHD and oppositional problems.

A further paper by Dadds *et al* (1999) reports results at a two-year follow up. Specifically, the intervention was associated with a 20% improvement at 2 year follow up in the rates of anxiety disorder over and above the rate observed in children in a monitoring condition. The authors conclude, therefore that a brief psychosocial intervention has potential to prevent children with mild to moderate anxiety problems from developing more serious disorders. A next step in research they comment, is to see under what conditions such programmes can successfully be implemented in schools using their existing resources rather than importing specialists.

Another study based in the US (Bernstein *et al* 2005) also focused on anxiety prevention, attempting to build on the work of Dadds *et al* using the FRIENDS programme, a manual based CBT programme developed in Australia from the Coping Koala scheme. This study aimed to compare the effectiveness of three school-based interventions for anxious children: group cognitive-behavioural therapy (CBT) for children, group CBT for children plus parent training group, and no treatment control. In this case a sample of 453 7-11 year olds in three elementary schools were screened using the Multidimensional Anxiety Scale for children and teacher nomination. Of the original group, 101 identified children and their parents completed a second stage screening. From this, 61 children entered the treatment phase and were randomised by school to one of the three conditions. Schools had been previously matched on size, percentage of minority students and percentage of students receiving free school lunches. Schools were randomly assigned to one of three conditions.

Both child and parent groups met after school in classrooms at the children's schools. All met for 9 weekly 60 minute sessions led by trained therapists.

The findings demonstrate that group CBT for children and group CBT for children plus parent training are significantly more effective than no-treatment control in decreasing children's anxiety symptoms and in facilitating remission in baseline anxiety diagnoses. The authors

speculate that their findings of very significant difference immediately post treatment (compared to Dadds *et al*) may be a consequence of their using more sensitive outcome measures (MASC and SCARED, compared to Dadds' use of RCMAS)

The authors note that this study was conducted in a largely white rural suburban population, so its applicability to urban settings or areas with high ethnic populations, for instance, is unknown. As with Dadds' study, although this intervention was based in school, none of the school staff were involved in the administration of it.

A study by King and Kirschenbaum (1990) addresses the problems of general school adjustment resulting in anxiety disorders. The article reviews the effectiveness of the Wisconsin Early Intervention (WEI), a social development programme for rural elementary school children. Children in two elementary schools (kindergarten through to grade 4) were screened on teacher assessment followed by face-to-face conference between teacher and WEI coordinator. 53% of children were referred for service – a deliberately high percentage as an active effort was being made to promote this as a general social development programme to minimise stigma associated with participation. Participating children were randomly assigned to intervention conditions nested within schools. In School A the full service condition involved social skills groups for children plus consultation. The control arm in the same school involved consultation only. In School B, two conditions were available; consultation only and no service. Social skills training involved a curriculum offered in small groups for half a year (24 sessions) that looked at skills such as active listening, understanding emotions, self-control and social problem solving. Sessions were delivered by school paraprofessionals recruited from the school community and trained for the purpose. The consultation condition involved offering a weekly service to teachers and by appointment to parents providing information on child development, behaviour management and so on. The evaluation found that, regardless of services offered, children consistently improved their competencies and decreased their problem behaviours over time. Explanation for this may be found in both panel or attention effects as well as in developmental changes in cognitive abilities and social behaviours. Some evidence supported the efficacy of the full intervention programme, with full service children experiencing less depressed mood post intervention, as well as greater self confidence and greater initiative.

All of the studies described above in this section might be classified as targeted preventive interventions directed at subgroups whose risk of developing a mental disorder is significantly higher than average. Two final studies (both US) are indicated interventions directed at individuals who are identified as having prodromal signs or symptoms related to mental disorders, but who do not yet necessarily meet diagnostic criteria. The implications of this are that the interventions described are treatment programmes not preventive ones.

School refusal was the focus of an intervention by King *et al* in a later paper (1998) which reports an attempt to use a cognitive behavioural treatment programme on children aged 5 to 15 years. 34 school refusing children were randomly assigned to a CBT treatment or a waiting list control. Most of the children had an anxiety or phobic disorder. Treatment consisted of CBT therapy for the individual child plus parent/teacher training in child management skills. Results showed that relative to waiting list controls children who received CBT exhibited a significant improvement in attendance. They also improved on self-reports of fear, anxiety, depression and coping. Maintenance of therapeutic gains was demonstrated at a 3-month follow up assessment. The research design does not allow us to say which of the elements of the treatment was responsible for the effect, and sample size is very small.

Stolberg and Mahler (1994) examine a school-based intervention treatment for children of divorce. 103 children in years 3 to 5 of separated or divorced parents were assigned to one of three treatment groups through school randomisation to condition. The first simply offered support (8 weekly sessions). The second offered support but also skill-building, transfer and also parent training procedures (14 weekly sessions). The third condition was a no-treatment control. 26 children from intact homes acted as non-stressed controls.

The intervention was given in groups led by doctoral students in clinical psychology and by school guidance counsellors and vice principals (one of the few interventions that actually involved school personnel). Support sessions involved games, writing newspaper articles, discussions using stimuli such as cartoons and pictures. Skills development and transfer sessions focused on teaching children about feelings, and learning self control techniques (including anger control).

Measures of child adjustment at pre-intervention were related to four clusters: affect, cognition, behaviour in the home and behaviour at school. Affect was measured with the State-Trait Anxiety Inventory for Children (STAI-C) and Children's Depression Inventory. Cognition was measured using Self Perception Profiles. Behaviour at home was measured by CBCL scales and behaviour at school using six of the Teacher's Rating Form Scales. The two skill building conditions yielded durable improvements in adjustive behaviours in the home. The benefits of the support alone condition were experienced most by children who entered the intervention with significant problems, with the greatest reductions in clinical symptomatology at follow-up being found in this group.

General comments on state of the evidence:

- There is considerable similarity in the content and theoretical framing of the CBT based prevention programmes offered as intervention packages to prevent anxiety disorders
- Teacher ratings of children's anxiety levels often show poor concordance with other measures
- Although the study by Dadds et al recruited a sample across three socio-economic bands, most of the anxiety studies reported here are in rural or suburban populations and none seems to include a large ethnic minority population
- All interventions included here, though undertaken in school contexts, imported skilled therapists for screening, intervention treatment and post testing. It is not known how or whether such interventions could be effectively delivered by teachers.

Evidence Statement 1: Anxiety disorders

CBT-based programmes targeted at reducing anxiety disorders have been transferred successfully between countries, indicating a high degree of generalisability of applicability.

Two studies (both quality rated 1++) show that brief (10 weeks and 9 weeks) targeted interventions aimed at reducing anxiety or preventing the development of symptoms into full blown disorders appear to be successful in groups of children showing the precursor symptoms associated with anxiety disorders.

One study (quality rated 1++) was able to demonstrate that when parent training is combined with child group CBT there are additional benefits for children.

Two studies (quality rated 1++) of *indicated* interventions aimed at children of divorce and children who are anxious school refusers show sustained benefit for children from CBT-based skills training.

### 3.1.2 Mood disorders

Five studies (4 US, 1 Australia) dealt specifically with interventions designed to prevent depressive symptoms or for use with primary schoolchildren who were already symptomatic.

Depressive disorders (5 studies, 5 papers)		
Stein BD and Jaycox JH	2003	1++
Jaycox JH <i>et al</i>	1994	1+
Kam C M <i>et al</i>	2004	1+
Weisz JR <i>et al</i>	1997	1+
Liddle B and Spence SH	1990	1+

An article by Jaycox *et al* (1994) (quality rating 1+) describes the use of a programme that was new at the time, the Penn Prevention Programme (PPP). Although the study described in this paper focuses on 10-13 year olds, i.e. at the very edge of the primary age range and beyond, the apparent effectiveness of the programme warrants its inclusion. PPP uses cognitive-behavioural techniques to teach children coping strategies to use in the face of negative life events and to enhance their sense of mastery and competence across a variety of situations. In addition to preventing depressive symptoms the programme was designed to combat the deficits associated with depression in children, e.g. lowered academic achievement, poor peer relations, lowered self-esteem, behavioural problems. The authors note that as many as a third of children with depressive symptoms also develop a co-morbid conduct disorder.

This was a 5-year prospective study in which the effectiveness of three versions of the programme was compared to that in a combined control group consisting of a wait list group and a no-participation control group. In order to identify those children who might be 'at risk' from depression within a normal school population, two separate indices were used. First depressive symptoms were measured (using the Children's Depression Inventory) in order to select children showing some degree of dysphoria. Second (in line with evidence that marital conflict and low family cohesion are associated with increased depressive symptoms in children) children rated the degree of parental conflict in the family home (using the Child's Perception Questionnaire). There are stronger indicators of potential depression (e.g. existence of depression in parents), but these were not thought likely to yield a sample of sufficient size. The result of using these measures is the recruitment of a sample only mildly at risk for future depression.

The study was carried out in a suburb of Philadelphia where a pool of 900 children across years 5 and 6 of 7 different elementary schools filled out two screening questionnaires. The same selection procedure was used to recruit children for a no participation control group in a different school district. Recruitment rates were low (13%), possibly because of the predicted length of the project, so a self-selection bias is implied and acknowledged. From the pool of 262 children eventually given the screening measures, 149 children were identified as 'at risk'

based on the two screening instruments. Eight groups (each 10-12 children) were formed. Schools, rather than children, were randomly assigned to the different treatments. Whilst most of the children were Caucasian, 11% were African-American.

The Penn Prevention Programme contains two components: a cognitive component and a social problem-solving component. The former is based on traditional cognitive therapy that emphasises that it is beliefs about an event rather than the events themselves that generate feelings. The model challenges negative beliefs about the self, present circumstances and the future and focuses on instilling a flexible thinking style and on learning to evaluate the accuracy of beliefs. The social problem-solving component teaches children goal-setting, perspective taking, information gathering, generating alternatives for action, decision-making and self-instruction. Each week in groups after school children received games and stories to demonstrate the concepts, group activities to learn and reinforce skills. They were also given homework assignments.

Children were tested before the intervention and at 3-month and 6-month intervals thereafter. Questionnaires were also sent to parents, and children's school report cards were also examined. Results showed significant relief from and prevention of depressive symptoms for treatment groups as opposed to controls. This was maintained at 6-month follow up. There were better treatment effects for those children experiencing more parental conflict at home. The study, though delivered on school premises after school, utilised members of the research team as group leaders and the authors can only speculate that parents and teachers using the same techniques could run similar programmes. This is an effective, school-based programme for use with targeted pupils that has been shown to decrease depressive systems. Though the intervention was developed in the US, the methodology and underlying principles would make it suitable for transfer to the UK.

In contrast, the study by Liddle and Spence (1990) from Australia dealt with a much smaller number of younger children ( $n=31$ , aged 7-11 years) who had symptomatology typical of that leading to depression. The authors here point to flaws in previous effectiveness studies with this population group in terms of the initial screening measurement of depressive tendency, the allocation to and management of control groups, the lack of longer term follow up to see if results are sustained. In their own study, carried out in metropolitan Sydney in two Catholic primary schools, children were screened first using the Children's Depression Inventory, followed by an individual interview two weeks later for all those above a certain cut-off point on the CDI scale. Of 70 children who exceeded the cut-off point, 33 were identified as lying within the clinical range of depression (i.e. 33 out of an initial sample of 380, or 9% of the school population of that age). The chosen subjects were randomly assigned to one of three groups, namely social competence training, attention placebo control and no treatment control. Initial measures were the CDI, the Matson Evaluation of Social Skills for Youngsters and the List of Social Situation Problems. These were administered to whole year group at inception, and then just to the 'depressed' sample at post treatment and follow up.

A second year clinical psychology postgraduate trainee conducted intervention on a weekly basis for 8 one-hour sessions. Children attended sessions at their own schools in small groups of 4 to 6. Training included instruction, modelling, role-play, feedback and reinforcement. Children were given homework assignments. The placebo control group were given a drama programme that contained some similar elements, but no skills-based instruction. The other control group received no intervention other than the testing.



Results indicated a decline in depression scores during the treatment period across all groups and this continued at two month follow up. The authors therefore conclude that the social competence training was not effective. They posit a variety of reasons why this might be the case, some of which throw doubts on the methodological rigour of previous studies (in terms of recruitment, failure to follow up etc), but some of which reflect on their own study, as in concerns over the length and depth of the intervention they had framed. They note in particular that the children were not a uniform group in terms of overt behaviour. Some were withdrawn and quiet; others 'acted out' and were aggressive and difficult. This made instruction and role-play more difficult. It is notable that this differs from some of the previous studies described where hyperactive and aggressive children were deliberately excluded from study because of the confounding effects of their co-morbid conditions.

A paper by Weisz *et al* (1997) (quality rating 1+) also deals with children with mild and moderate depression and sets out to examine whether brief interventions can work with children with this symptomatology. The rationale for this focus lies in the fact that where clinical programmes have been shown to have been most effective they have often involved 12 to 27 week programmes, yet cost containment programmes, pragmatic limitations on staff time and attrition rates amongst attendees may make it sensible to see whether a shorter intervention can be as effective. Consequently an 8-week programme (Primary and Secondary Control Enhancement Training or PASCET) was developed by the authors, based on a two-process model of control. Primary control involves enhancing reward or reducing punishment by making objective conditions conform to one's wishes (e.g. outcome of a sports event or one's standing or acceptance in a group). Secondary control involves enhancing reward or reducing punishment by adjusting oneself (e.g. one's beliefs and aspirations) in response to objective conditions. The authors reason that depression may be addressed in part by leaning to apply primary control to distressing conditions that are modifiable and secondary control to those conditions that are not.

The sample in this study was drawn from 500 children in years 3 to 6 of three elementary schools. A selection procedure involved screening via the self report Children's Depression Inventory, a teacher report, and, for those children scoring high on the CDI and receiving a teacher's report indicating possible problems, a clinical interview at which the revised Children's Depression Rating Scale was used. 51 children from the original 500 met these criteria (a rate roughly equivalent to the 1 in 10 found in other studies); 48 took part. The study involved roughly equal numbers of boys and girls. Of the group of 48, 30 were Caucasian, and 18 were ethnic minority, mainly African-American children. 16 were randomly assigned to treatment and 32 to no treatment control condition.

Treatment took place during school hours on school premises in small groups, but was given by doctoral level students in clinical psychology. As in previous studies the cognitive-behavioural intervention involved role-play, games, video and homework activities. For post treatment assessment the CDI and CDRS-R were re-administered 18 days after the last session and then again at a 9 month follow-up.

Results were encouraging, with children receiving the 8 session PASCET programme showing significantly reduced levels of depressive symptoms at immediate post test compared to controls, on both measures of depressive symptomatology. This finding held at the 9 month follow up and comparisons showed that treated children were markedly more likely than control children to move into the normal range on depression measures. However, the authors note that it would not be appropriate to claim that this was a 'cure', since the sample was not

depressed to begin with. Effect sizes might have been greater in children with more severe symptoms and with longer treatment time.

All of the studies described above in this section were targeted interventions directed at subgroups whose risk of developing a mental disorder is significantly higher than average. Two final studies (both US) look at interventions with indicated groups of children.

Stein *et al* (2003) report work with school children exposed to violence. In the US large numbers of children are said to experience violence or witness violence, with the burden falling disproportionately on the urban poor and on minority populations. Children thus exposed may experience Post Traumatic Stress Disorder (PTSD), but exposure to violence is also associated with depression and behavioural problems. This study sets out to evaluate the effectiveness of a collaboratively designed school based intervention for reducing children's signs of PTSD and depression resulting from exposure to violence. Subjects were year 6 students at two large middle schools in Los Angeles who reported exposure to violence on a self report questionnaire administered by trained school mental health clinicians. The questionnaire used a modified version of the 34-item Life Events Scale. Questions asked were about actual experience or witnessing of violence, not exposure to violence through film or TV for example. Children scoring over a threshold level also completed the child PTSD Symptom Scale. Those that had symptoms in the clinical range, were judged by clinicians as competent to take part in group work and were not too disruptive for this format were recruited. 159 students met the inclusion criteria. 126 agreed to participate. Students were randomly assigned to an early intervention group or a wait list delayed intervention group. The intervention was a 10-session CBT group, using games, instruction and homework assignments and was delivered by 'school clinicians', specially trained by the investigators. Quality of delivery was also assessed and found to be adequate. Students attended the groups in school time for one period per week. Outcomes were assessed by measurement at baseline, three month and 6 months using the CPSS, a child self report measure, the Child Depression Inventory, the 35 item Paediatric Symptom Checklist (to score child psychosocial dysfunction, filled in by parents), and a Teacher-Child Rating Scale (filled in by teachers).

The results showed that students who received this brief standardised intervention, delivered by school mental health clinicians on school campuses, had significantly fewer symptoms of PTSD and depression and fewer reports of psychosocial dysfunction by parents at the 3-month assessment than controls.

This programme, more than others described here, set out to work collaboratively with school authorities in setting up and delivering the intervention. They note that this meant that they could negotiate fewer exclusion criteria for the programme, such as children with co-morbid disorders. This might potentially have had the effect of diluting or confounding the results and reducing effect sizes, but it does also increase the generalisability of the study, a characteristic which may be very valuable as efforts are made to develop and evaluate interventions in community settings. Blinding was poor in this study design, and there may have been contamination between groups. The researchers acknowledge that comparison with a placebo intervention would have been ideal, in part to control for the attention that children receive as being part of the programme, but such designs are difficult to implement in schools where there is a push to provide the same programme to all students and randomisation to a placebo can be seen as insensitive to the need of students and families. Teacher measures showed great discrepancy with other measures.

A final study considered here is that by Kam *et al* (2004). This deals with an application of the PATHS (Promoting Alternative Thinking Strategies) model, which will be more fully discussed in the universal or whole school review, as that is the context in which it is normally applied. The model is based on the ABCD (affective, behavioural cognitive, dynamic) model of development which places primary importance on the developmental integration of affect, behaviour and cognitive understanding as they relate to social and emotional competence. Here it is examined in as far as it is applied to children in special education, who might be considered an indicated population. 18 special education classrooms were randomly assigned to treatment and controlled conditions in this controlled trial. Teachers received training and ongoing support and taught the PATHS curriculum to grades 1 to 3. Data were collected before the intervention and for three years thereafter. Results showed that the intervention reduced the rate of growth of teacher-reported internalising and externalising behaviours 2 years after the intervention and also produced a sustained reduction in depressive symptoms reported by the children.

General comment on the state of the evidence:

- Several of the studies which met the quality controls imposed for this review fall into the genre of 'research therapy studies', i.e. treatment carried out as a research test, using non-referred children who have modest symptom levels, with treatment carried out in a school setting but by therapists from a university. They might therefore in many ways be best seen as exploratory trials prior to the design of school based interventions using school personnel.

## Evidence Statement 2: Mood disorders

All studies examined use CBT based approaches.

One study (quality score 1+), the Penn Prevention Programme, showed that it may be possible to relieve and prevent depressive symptoms using a targeted school-based approach where a traditional cognitive behaviour component was allied with a social problem-solving component.

Evidence from other treatment programmes with children with mild to moderate depressive symptoms is mixed. Co-morbid conditions with depression (often expressed in conduct or hyperkinetic disorders) make intervention delivery difficult and can confound treatment effects. However, generalisability is increased if effect can be shown in studies that do not exclude children with co-morbid symptoms.

One study (quality rating 1+) attempted to see whether a brief intervention (8 weeks) was as effective as a longer programme in producing improvements in depression scores. The trial was judged effective, but this was a non-diagnosed sample.

Interventions directed at indicated subgroups show some degree of success. A study (quality rating 1+) of young people exposed to violence showed reasonable effect sizes. The programme involved a high proportion of BME children and also used trained school personnel to deliver part of the programme.

### 3.2 Interventions focused on externalising behaviours (conduct and hyperkinetic disorders)

Three diagnoses currently comprise the disruptive or externalising behaviour disorders of childhood; oppositional defiant disorder (ODD), conduct disorder (CD), and attention deficit hyperactivity disorder (ADHD). Children with ADHD exhibit heightened levels of inattention and hyperactivity combined with impulsivity. Sufferers from ODD are said to exhibit consistent patterns of defiant and disruptive behaviour. Although ADHD sufferers can be disruptive in social settings, their behaviour generally lacks the negative quality that is the primary feature of the ODD diagnosis. There may be a developmental factor here, in that some authors note that about 40% of children with ADHD will go on to develop significant conduct problems, one presumes as a consequence of social reaction to their condition (Offord *et al* 1992). CD includes all the features of ODD but is a more severe and persistent diagnosis; the primary diagnostic criteria include aggression towards people and animals, destruction of property, deceitfulness or theft and school or home violations. Offord *et al* (1992:19) distinguish this from 'delinquency' and say that this is an important distinction to make in terms of psychopathology. Many children and adolescents who engage in delinquent activity will also be conduct disordered (50-90%), but the reverse is not true. Not all delinquent acts result from a recognisable conduct disorder.

Early intervention is particularly important in these types of disorders because – left untreated – they are amongst the most persistent of problems, escalating with age and duration and being carried into more serious forms of disorder in adulthood. They are also, unfortunately, amongst the most complex to address. Reid and Eddy (1997) for instance, comment that conduct disorder is one of the most difficult conditions to remediate because the disorder is often supported in multiple contexts, the risk factors associated with it tend to cluster together and are related in complex ways, and each risk factor tends to set the stage for increased risk in the next phase of development.

#### 3.2.2 Attention deficit hyperactivity disorder (ADHD)

Only two studies were included which dealt solely with ADHD as a condition. The first is a US based study; the second reports a study undertaken in Spain. This small number probably reflects the fact that attention deficit is often treated as part of the broader problem of conduct disorder, since hyperactivity and inattentiveness are often one of the first early childhood markers of later and more serious problems. Despite this conflation it is likely that neurological factors that regulate activity and inattention play a more substantial role in ADHD.

Hyperactivity (2 studies, 2 papers)		
Bloomquist ML <i>et al</i>	1991	1++
Miranda A <i>et al</i>	2002	1+

Bloomquist *et al* (1991) reflect on the fact that CBT interventions with ADHD children have been largely ineffective, with any short-term gains rarely being sustained. This lack of success has been variously attributed to the attention being focused solely on children (with supportive adults being only peripherally involved) and also on the narrow range of skills focused on in interventions. For this reason Bloomquist *et al*'s programme intervention was a multi component one, targeting children, teachers and parents and also focusing on teaching children problem solving and self-instruction skills. Three matched elementary schools were used to carry out a multi stage screening for ADHD cases in years 1 to 4 (yielding a 4.3% rate

of ADHD in the school population). Two of the three participant schools were selected at random to deliver either a multicomponent or a teacher only intervention. The third school participated in the waiting list control condition. The multicomponent CBT intervention utilised school psychologists and undergraduate psychology students to train as therapists or co-therapists. These worked with groups of 6-8 ADHD children, meeting for two 1-hour sessions each week for 10 weeks. Children were taught a generic problem solving protocol and then encouraged to apply this to different problem areas, e.g. interpersonal skills, anger management. Sessions involved didactic input, role-play and so on. Children were also given homework assignments. The results provide only minimal support for the efficacy of a multicomponent CBT intervention for ADHD children. There was a reduction in off-task behaviours in the intervention group compared to teacher only or wait list controls, but no significant effects on child self-reports or teacher ratings of adjustment. There were no significant differences in measures at follow up.

A similar but more recent study by Miranda *et al* (2002) also reports a multicomponent programme but this was specifically aimed at the teachers of children with ADHD, who were trained in understanding and spotting ADHD symptoms in children and in teaching CBT techniques to stimulate the self control of students. Teacher and pupil ratings of the scheme were positive but there were no measurable changes in the proportions of children meeting diagnostic criteria for ADHD. There were no measurements at follow up.

### Evidence Statement 3: Attention Deficit Hyperactivity Disorder

Two studies (quality rating 1++ and 1+) both describe multi component interventions that are based on CBT, one aimed at ADHD children/young people, the other at up-skilling teachers to spot ADHD symptoms and respond appropriately. Neither study reported any significant degree of success. It is hypothesised that this failure may reflect the co-morbidity of ADHD with other conduct disorders, despite its possibly different neurological basis.

#### 3.2.3 *Conduct disorder and oppositional defiant disorder*

There is considerable overlap in the conditions that interventions in this area aimed to treat. ODD is characterised by an emphasis on violence and aggression alongside the characteristics associated with conduct disorder, but many intervention programmes do not distinguish between the two. Disruptive behaviour disorders are among the most prevalent and stable child psychiatric disorders (Costello 1989). We now have a sophisticated developmental model of how such disorders develop, due to the work of the Conduct Problems Prevention Research Group in the US and the work of a host of other authors, and many interventions are thus theory-based. Parent behaviours associated with the onset and development of conduct disorder include high levels of punitive discipline, lack of monitoring, the use of frequent reprimands. Children with conduct disorders often have poorer social skills, high rates of cognitive distortion, problem solving deficits and so on. So complex and pervasive a mix is this, that interventions therefore often aim simply to mediate the mechanisms linked to the development of CD, or attempt to change the levels of symptoms rather than reduce the diagnosis of CD overall. A number of well-reported programmes stand out, most of them US based. Because so many papers fall into this category a further division is used to look first at interventions targeted solely at young people and secondly to look at multicomponent programmes that involve a complex mix of activities directed at young people, but also at their parents and/or teachers.

### 3.2.3.1 Interventions targeted solely at young people

Six interventions (all US) are included that focus solely on young people at risk for or diagnosed with ODD or CD. On the whole these are older reporting experimental trials done in the late eighties and early nineties. The low levels of effects emerging from many of these studies drove the development of the multicomponent programmes described in the next section.

ODD and CD		
<i>Focused solely on YP (6 papers, 6 studies)</i>		
Hudley C and Friday J	1996	1++
Prinz RJ <i>et al</i>	1994	1++
Hudley C and Graham S	1993	1++
Mize J and Ladd GW	1990	1-
Desbiens N and Royer E	2003	1-
Larkin R and Thyer BA	1999	1-

Hudley and Graham (1993) and Hudley and Friday (1996) report on BrainPower, an attributional intervention to reduce peer-directed aggression. The programme's objective was to reduce childhood aggression by eliminating biased judgements of a peer's intent. This is a common characteristic of young people with conduct disorder. The study was conducted in Los Angeles in the US among African-American boys in elementary school. A sample of 101 boys from 2 elementary schools, both aggressive and non-aggressive was recruited and randomly assigned to three groups; the attributional intervention; an attention-training programme and a no treatment control group. An initial aggression rating for each child was produced as a consequence of combining ratings from teachers and peers. Non-aggressives were included in all groups to avoid stigmatising research subjects. The subjects were 4<sup>th</sup> to 6<sup>th</sup> graders at the time of the intervention. The focus intervention consisted of a 12-lesson programme in which boys were first taught to accurately detect intentionality, through role-play, discussion and other activities. The second component focused on increasing the likelihood that aggressive boys would make attributions to non-hostile intent when negative social encounters were portrayed as ambiguous (e.g. a peer spills milk on you in the lunchroom). Finally boys were given practice in making attributions and generating decision rules about how to respond given attributional uncertainty. Interventions were delivered twice weekly over 6 weeks in school settings (but in a location away from the regular classroom). Group leaders all had a background in education, but were specially trained.

Results from the programme were impressive on some levels only. Compared to their counterparts in the attention training and control groups, aggressive subjects in the attribution-training programme showed a marked reduction in both the bias to assume hostile intent and a preference for aggressive behaviour. Aggressive intervention subjects were rated as significantly less aggressive by their teachers post intervention, even though teachers remained blind to treatment condition throughout the study. Despite these impressive claims the results must be treated with caution. The reductions noted are all relating to reactions to hypothetical stimuli. The only real world outcome measured – referrals of subjects to the head teacher for disciplinary offences – showed no change for the intervention subjects. The authors also caution that, in the context of these boys' lives, aggression may have been an appropriate survival strategy rather than a dysfunctional characteristic, given the violence of the neighbourhoods in which they resided. The study was not a longitudinal one so there is no data

after post intervention tests. Despite these drawbacks the study focuses on an ethnic minority population and may be of interest because of this.

Hudley and Friday report a similar study in 1996 with a mixed group including Latin and African-American youngsters. Group leaders were all educational aides nominated by their school principals and intensively trained in the BrainPower programme.

In a small study reported by Mize and Ladd (1990), changes in the behaviour and peer acceptance of low-status preschool children as a result of social skill training were examined. Children of lower socioeconomic status, and were also low in classroom use of social skills, were randomly assigned to a skill training group or an attention control group. Children in the training group were coached in 4 skills; leading peers, asking questions of peers, making comments to peers, and supporting peers. Trained children showed a significant increase in their use of the trained skills comments and leads from pre-test to post-test, whereas control group children showed no change. Increase in skill use in the classroom with peers was correlated with improvements in children's knowledge of friendly social strategies from pre- to post-test.

Prinz *et al* (1994) used a method of peer norming to influence aggressive students by integrating them with better-adjusted peers. The Peer Coping Skills Training programme recruited 94 1<sup>st</sup> to 3<sup>rd</sup> grade students with both high and low aggression ratings derived from teacher report. Students were then randomly assigned to either treatment or control groups. The treatment group received 22 weekly 50-minute sessions at which they were taught pro-social coping skills. The format encouraged and reinforced peer support. Outcomes measured at post test and 6 months later showed positive effects. Competent non-aggressive children who took part suffered no adverse consequences and also demonstrated skill enhancement.

Another study using co-operative learning and tutoring by a prosocial peer is that described by Desbiens and Royer (2003) (quality rating 1-) from a Canadian study. The programme offered in this intervention combined in-class social skills training (led by class teachers) with the specific educational activities with peers taught by graduate students in specific weekly sessions). Results showed no significant difference between treatment and control groups after the programme. A modest effect size showed a relative improvement for students with behavioural disorders who participated in social skills training.

Larkin and Thyer (1999) (quality rating 1-) evaluated the effectiveness of CBT group counselling with groups of behaviourally disruptive elementary school children. 52 students from two elementary schools were recruited on the basis of teacher identification of disruptive behaviour. Students were randomly assigned either to immediate group counselling or delayed wait list treatment. Group counselling sessions were given by the first author. Following intervention the treated group had higher self esteem, perceived self control and were graded better on behaviour by teachers. However, raters were not blinded to treatment condition and there is clearly likely to be an attention effect in this type of design.

General comment on the state of the evidence:

- Many studies relating to aggressive behaviour have focused only on boys or have very small sample sizes

- These experimental trials are characterised by small sample sizes and weaker experimental designs (e.g. no treatment controls, thus confounding the judgement about whether any observable effect is due to therapy or training or simply due to an increase in attention paid to children)
- Outcome measures are often unreliable or unhelpful, focusing on non-blinded ratings of teachers or focusing on improvements in hypothetical or proxy situations rather than real life measures
- Few of the studies report significant follow up data, so there is only poor evidence that any reported benefits are sustained.

#### Evidence Statement 4: Conduct disorder and oppositional defiant disorder

Interventions focused solely at young people have used peer norming and negative attribution reversal techniques. They report modest effects and their impact tends to fade over periods of time.

Two studies (quality rating 1++ and 1-) report that peer mentoring or 'buddying' of aggressive with non-aggressive children may yield important gains for the former group in terms of developing their prosocial skills and social standing.

##### *3.2.3.2 Multicomponent interventions targeting young people and parents/teachers*

14 interventions (all US) are included that focus on multicomponent interventions for young people at risk for or diagnosed with ODD or CD. Most combine specific interventions with young people with parent and often teacher training. Six of these are longitudinal studies.



<b>ODD and CD</b> <i>Multicomponent interventions (29 papers, 14 interventions)</i>		
<b>Vitaro and Tremblay</b> Tremblay RE <i>et al</i> Vitaro F and Tremblay RE Tremblay RE <i>et al</i> Vitaro F	1991 1994 1995 1999	1++
<b>Webster-Stratton</b> Webster-Stratton C <i>et al</i> Webster-Stratton C and Reid MJ Webster-Stratton C and Reid MJ Reid MJ <i>et al</i>	2001 2003 2004 2003	1++
<b>Conduct Problems Prevention Research Group (CPPRG)</b> CPPRG CPPRG CPPRG	1999 2002 2004	1++
<b>August</b> August GJ <i>et al</i> August GJ <i>et al</i> August GJ <i>et al</i> August GJ <i>et al</i>	2001 2002 2003a 2003b	1++
<b>Lochman</b> Lochman JE Lochman JE <i>et al</i> Lochman JE and Wells KC Lochman JE and Wells KC Lochman JE and Wells KC	1992 1993 2002 2003 2004	1++
<b>Metropolitan Area Child Study Research Group</b>	2002	1++
Weiss B <i>et al</i>	2003	1++
Barkley RA <i>et al</i>	2000	1++
Barrera M <i>et al</i>	2002	1++
Braswell L <i>et al</i>	1997	1++
O'Donnell J <i>et al</i>	1995	1++
Waschbusch DA <i>et al</i>	2005	1++
Fraser MW <i>et al</i>	2004	1+
Atkins MS <i>et al</i>	2006	1-

The work of Vitaro, Tremblay and colleagues (Tremblay *et al* 1991; Vitaro & Tremblay 1994; Tremblay *et al* 1995; Vitaro *et al* 1999)(quality rating 1++) in Montreal, Canada is significant because it formed part of the Montreal Longitudinal Study of Disruptive Boys and was able to follow boys from kindergarten through their school career. An early study (1991) involved assessing effects of a preventive programme carried out during the boys' early years in primary school. The study population was kindergarten males in low socio-economic areas of a large metropolitan city. Boys were included only if both parents were born in Canada and the parents' mother tongue was French – this was to ensure a homogenous white francophone sample. Boys were assessed at 6 years of age by their kindergarten teachers using an inventory developed by the authors from earlier instruments (the Preschool behaviour

Questionnaire and the Prosocial behaviour Questionnaire). All boys who had a disruptive score above the 70<sup>th</sup> percentile were considered 'at risk'. These disruptive boys (n=319) were randomly allocated to a treated group (n=46) and two non-treated groups, a placebo or observation group (n=84) and a no treatment control (n=42). Treatment (which continued over two years when the boys were aged 7-9) consisted of parent training (in positive reinforcement for prosocial behaviour, effective punishments etc) and training of boys in social skills and self-control skills. Treatment was delivered by child care workers, a psychologist and one social worker, all working full-time. Each case worker was responsible for 12 families. Case worker and family met, on average, every other week. The in-school intervention involved giving the boys two types of skills training within small groups of prosocial peers nominated by teachers. This was designed to prevent stigmatisation of the disruptive children and also so that they would act as positive models and reinforcement agents. Lessons were delivered once a week (45 minute sessions) either in class time, lunchtime or after school. Results showed no statistical differences at the end of treatment between intervention and controls for teacher ratings of disruptive behaviour, anxiety, inattentiveness and prosocial behaviour. Young people's self ratings are more encouraging and treatment is seen as effective measured by long term follow up on a measure of school competence which looked at whether children had been placed in special classrooms or held back in school. By 1995 the authors were able to report on the boys' progress into mid-adolescence. Results indicated that a significantly greater percentage of treated boys remained in an age-appropriate regular classroom up to the end of elementary school, and that the boys reported significantly fewer delinquent behaviours at yearly assessments from 10-15 years old compared to controls. Further follow up studies of the same group to explore early school drop-out are hampered by low power and high error terms. The results of the intervention reflect the importance of long-term follow up in a condition that is likely to manifest itself in earnest in later adolescence.

Another notable intervention is that known as the Incredible Years Intervention, developed and reported by a group led by Webster-Stratton (Webster-Stratton *et al* 2001; Reid *et al* 2003; Webster-Stratton and Reid 2003; Webster-Stratton *et al* 2003) (quality rating 1++). The intervention was originally primarily focused on parents and parent training and education, but later intervention trials combined this with teacher training and child skills training and these seem to demonstrate longer-term effects. This study only marginally fits the inclusion criteria for this review. Children enrolled in the programme (n=159, aged 4 to 8 years) came to the Dinosaur School clinic, which was offered in weekly 2-hour sessions over six months, but children were brought to specific centres from their own schools from across a wide area. The Dinosaur School programme addressed interpersonal difficulties that research has shown are problematic for young children who have ODD. These include lack of social skills and conflict resolution skills; loneliness and negative attributions, inability to empathise and understand another's perspective, problems communicating with peers. Treatments were CBT based and offered by clinicians. The groupwork involved the use of puppets, live and videotape modelling and role-playing, as well as practice activities and fantasy play. Homework exercises were also given. The 2003 paper reports the 2-year follow-up of a programme which enrolled 4 to 7 year old children with child conduct problems (sufficient for them to meet the DSM-IV criteria for ODD and/or CD) into a complex suite of different treatment options comparing different mixes of teacher, parent and child training. Twenty five per cent of children were classified as treatment non-responders at home and/or at school. Teacher training added significantly to long-term school outcomes for children who had pervasive behaviour problems. A further report in 2004 suggests that each of the treatments led to expected changes in the groups at which they were targeted. Thus children in the treatment programme showed more prosocial skills than controls, and all parent training conditions resulted in more positive parenting. Adding

teacher training to both the parent training and child training regimes improved treatment outcomes in terms of teacher behaviour management in the classroom and in reports of behaviour problems. The authors conclude that a multicomponent intervention offering parent, child and teacher training may be the most potent treatment for pervasive behaviour conditions. This study is based on work done in suburban settings with a mainly white Euro American group, though the authors claim to have equally encouraging data from the Incredible Years programme being offered through Head Start schemes operating in more ethnically diverse and poorer communities.

Fast Track is a conduct-problem prevention trial that derives its intervention from the PATHS (Promoting Alternative Thinking Strategies) programme. PATHS is a universal, whole-school programme which will be reported and reviewed in the report from the University of Warwick. However, in addition to the universal programme there has also been an exploration of the utility of an intensified form of the intervention with targeted or 'at risk' pupils. The evaluation of Fast Track is presented by the Conduct Problems Prevention Research Group (1999; 2002; 2004) (quality rating 1++), a collaborative research group with authors across a variety of US universities. Within the trial over 9,000 kindergarten children were screened at 4 sites and in 3 cohorts. 891 were identified as high risk (by virtue first of living in areas of high crime and poverty, and secondly on the basis of teacher-parent ratings of disruptive behaviour at home and school) and then randomly assigned to intervention or control groups. Beginning in Grade 1, high risk children and their parents were asked to participate in a combination of social skills and anger control training, academic tutoring, parent training and home visiting. A universal classroom programme was delivered to the core schools attended by these high-risk children. The intervention for the Fast Track group involved attendance at a 2-hour enrichment programme held at the school building after school or at weekends once a week. 22 sessions a year were offered from October to April, and the provision of childcare and transport was included as an inducement to attendance. Parents were also paid \$15 for each session they attended. At the enrichment session children attended a 'friendship group' where they learned and rehearsed social skills using role modelling, discussions, stories and films. During this same hour parents met in a group led by family co-ordinators to discuss parenting strategies that would improve child behaviour. After the parent and child groups, parent-child pairs spent 30 minutes together each session, participating in positive co-operation activities and practising positive parenting skills with staff support. During the last 30 minutes children worked with paraprofessional support staff on their reading skills while parents observed.

At the end of the first year there were moderate positive effects on children's social, emotional and behavioural skills, improvement in peer interaction and fewer conduct problems. The 2002 paper reports the three-year follow up. By the end of third grade teacher ratings of conduct problems and official records of use of special education resources gave modest effect-size evidence that the intervention was preventing conduct problem behaviour at school compared to controls. Parent ratings provided evidence for improvement at home. The 2004 paper addresses the question of the benefits of the intervention in the 4<sup>th</sup> and 5<sup>th</sup> grades of elementary school. The overall conclusion is that Fast Track has continued to influence certain key areas of children's' adjustment throughout elementary school, reducing the likelihood of children emerging as 'cases' with problems in their social, peer or home functioning. Treated children were less likely to be involved in deviant peer groups. However, the hypothesis that Fast Track would improve the young subjects' academic and behavioural performance at school was not met. The project continues to track the children through their transition into high school. Overall, Fast Track is clearly 'work in progress', but for an intervention which is so intensive and costly, the gains appear modest at this stage. An interesting question not

answered in the report is the extent to which the results are diluted by the proportion of 'false positives' - children identified as 'at risk' in kindergarten on the basis of teacher and parent ratings, but who by grade 1 show no signs of serious behaviour problems.

Early Risers is a programme developed within a research group led by August in the US. 4 included papers describe this work (August et al 2001, 2002, 2003a, 2003b) (quality rating 1++). The programme aims to alter the developmental trajectory of children with early onset aggressive behaviour and again, is a complex multicomponent intervention which features a summer school programme, a teacher consultation and student mentoring programme and parent skills training groups and child social skills groups. Subjects were recruited via a screening programme based mainly on teacher rating carried out across ten matched kindergarten schools in a semi rural area of Minnesota. Children identified as 'high risk' were invited to participate and were then allocated to condition according to school (five schools were allocated as intervention and 5 as control). A sample of children from the same schools was chosen to serve as normative participants (no intervention).

The intervention took place over two years. Children received the main intervention at an intensive 6-week summer school held at 4 elementary schools in the region. Social skills training was coupled with creative arts/sports training and recreational activities. During the rest of the year Early Risers family advocates served as consultants to the 10 programme schools, making weekly visits to review student progress and give advice where requested regarding potential interventions that might be useful for individual students. Results at end of intervention showed gains for intervention children on a composite academic achievement score compared to controls, but no significant group differences on behavioural self-regulation, social competence or parent investment composites. Further exploratory analyses showed that the effectiveness of the intervention in these domains might be limited to certain subgroups on the basis of their behavioural severity and the amount of attention received (intervention dosage).

After a further year's intervention the authors report (2002) significantly more success. Intent to treat analyses revealed that programme participants after 3 years of intervention, compared with controls, showed greater gains in social skills, academic achievement and parent discipline, with mean scores in the normative ranges on the last two constructs. Parents and teachers rated programme children as having more positive social skills than control children. The difference in social skills (which had not been evident at the two year level, attests, in the authors' opinion, to the need for continuous intervention efforts or booster supplements when targeting at-risk children. However, no programme versus control differences were observed in children's aggression, hyperactivity and impulsivity.

A report by the same group after 4 years of intervention (2003b) found that programme children obtained higher scores on leadership and social etiquette and chose friends with lower aggression. On other variables, such as aggressive peer reputation, likeability, social preference, social impact and number of mutual friendships, there were no differences between programme and control children.

An interesting aspect of this intervention is the 'buddying' of aggressive with non-aggressive children, partly as a consequence of research design and latterly as a deliberate strategy, a similar approach to that within the Fast Track study at certain points. This may be an active ingredient in modifying and sustaining positive peer status outcomes among aggressive children.

The Anger Coping programme developed by Lochman's research group has its origins in the era of the 1980s before the start of our review period. At that point Lochman developed and refined a cognitive-behavioural school-based intervention that focused on developing anger management skills in aggressive elementary and middle school aged boys. A set of 18 sessions taught affect identification, self-control and problem solving skills. Early outcomes were in terms of observed lower levels of disruptive and aggressive classroom behaviour in intervention groups, but this difference was not maintained at a 7 month follow up or at a three year follow up.

Five papers from this group post 1990 are included (Lochman 1992; Lochman *et al* 1993; Lochman and Wells 2002, 2003, 2004) (quality rating 1++). These papers report longer-term effects of the initial intervention and also look at subsidiary outcomes on self-reports of substance abuse and delinquent behaviour as these youngsters moved into adolescence. The utility of the intervention was most evident with adolescent substance use. Three years after the end of the intervention, when the boys were in mid adolescence, those high-risk boys who received the intervention displayed lower levels of substance use than did boys who were at similar levels of initial risk but who did not receive the intervention. The cognitive-behavioural intervention had no overall effect on adolescent's classroom behaviour and the authors speculate on the necessity for longer, more sustained interventions with booster programmes, and also for family involvement.

Subsequent papers look at the effectiveness of the Coping Power programme in different settings or with different groups. The 2002 paper looks at the use of the programme at the middle school transition. Children were identified as being 'at risk' on the basis of 4<sup>th</sup> grade teacher ratings of aggressive /disruptive behaviour and assigned randomly to the Coping Power programme, the universal intervention, a combined universal and Coping Power intervention or a control condition. The Coping Power condition this time included both parent and child components. All three of the intervention conditions had a positive effect in terms of reducing adolescent substance use uptake. Biggest effects were for the combined universal and targeted Coping Power programme, and the authors conclude that nesting indicated preventive interventions for high risk children within universal programmes may be the most effective way forward. A one year follow up (2003) found that the combined universal and indicated approaches had also reduced school aggression 1 year after the intervention was completed.

The Metropolitan Area Child Study Research Group (2002) (quality score 1++) report a very lengthy and complex multi-year multi-component aggression prevention programme provided in inner city and other urban poor communities. The study spanned 8 years and 8 cohorts. Sixteen elementary schools were assigned to one of 4 conditions: no treatment control; general enhancement classroom programme; general enhancement plus small group peer skills training; enhancement plus small group skill training plus family intervention. The study was interested in evaluating the effects on aggression and achievement of three levels of a cognitive-ecological preventive intervention for children living in these circumstances, but other important aims related to the timing of intervention, and to school and community resource constraints. The hypothesis was that the general school programme would improve academic achievement but that only the more intense interventions would improve or prevent aggression among at risk groups. They also expected results to be greater when the intervention was offered early. This paper reports on results for a high-risk sub sample of children (n=1500). To test for the importance of developmental timing of interventions, level A, B and C interventions were delivered at three different stages: Grades 2-3, Grades 5-6 and at both grades. It is not

clear who delivers the intervention. Results indicate that comprehensive interventions can be effective for children in schools in settings with resources adequate to support learning and development but some unintended results can occur in schools in the most distressed communities when delivered too late in development. The most significant results occurred when the comprehensive intervention was offered early, and these effects were doubled when it was followed by an additional 'booster 2 year intervention in grades 5 and 6. None of the interventions was effective in preventing aggression among older elementary school children. Significant 'school effects' were evident and the variance accounted for by schools may reflect characteristics of the schools themselves. The authors conclude that it is more important to examine 'what works best for whom and in what circumstances' than to look for an answer to the simpler question of 'what works'. An adverse effect is reported with a note that similar effects have been found in other studies (not included in this review), namely that the general enhancement plus small group intervention appeared to lead to a maintaining of high levels of aggression when administered later in development in inner city communities. Such effects have been attributed to at risk youths promoting negative norms and beliefs about aggression or delinquency – a form of deviancy training that provides reinforcement for aggression. The authors also comment on the transportability of the programme. Though this intervention reported significant effects the volume of resources applied to achieve this is probably far greater than would be available within any normal school programme.

A number of smaller interventions also address CD and ODD problems using methods which simultaneously target both young people and their parents. Weiss et al (2003) (score 1++) describe a randomised controlled trial which provided a targeted intervention (Reaching Educators, Children and Parents - RECAP) for children experiencing internalising and externalising problems. An ethnically mixed group of 4<sup>th</sup> grade boys and girls were recruited to give a sample in the intervention group of 62 and a control group of 31. Members of the 93 families were also recruited. Young people in the intervention group were given a skills training programme individually, in small groups and in classes in the classroom and in a separate room at school. Skills training programmes were also administered to teachers and parents. The control group received no treatment. All training was delivered by social worker and psychiatric nurses and lasted for the 9 months of the school year. Skills training was similar to that described for other programmes, i.e. training in social skills, in reattribution of others' hostile intentions, in communication skills and in affect recognition and expression. Results from the intervention show limited effect, and even where statistically significant improvements in outcome measures were noted, children often still lay outside the normal range. The research design is not a sophisticated one because the control was simply 'no treatment' and it is not clear whether some of the effects achieved were simply treatment ones.

Barkley *et al* (2000) (score 1++) used annual pre-school screenings at kindergarten to identify 158 children having high levels of hyperactive, impulsive and aggressive behaviour. These were assigned to 4 treatment conditions lasting the school year: no treatment; parent training only; full day treatment classroom only; combination of parent training and classroom component. The parent training programme used methods and content similar to that described by Webster-Stratton (above). It consisted of 10 weekly sessions followed by monthly booster sessions for 5 months and was delivered by a specialist in the evenings at a medical centre. The children's intervention took place in a special treatment classroom in an ordinary school. Full time schooling took place in these classrooms. The intervention plus an accelerated curriculum was delivered by supply teachers and teaching assistants. They were trained by a teaching specialist and a psychologist. The intervention consisted of multiple behavioural interventions and intense academic coaching. On children entering Grade 1 the teaching and

psychology specialists provided consultations for the grade 1 teachers. Results showed that parent training produced no significant treatment effects, probably owing, as the authors acknowledge, to poor attendance. Classroom treatment produced effects in multiple domains relating to aggression, behaviours and social skills (on basis of teacher and parent ratings and on observation data). However, the intervention made no effect on academic achievement skills or on ratings of home behaviour. Most treatment effects were therefore specific to the school environment.

Barrera *et al* (2002) (score 1++) focused on a sample with a large proportion of Hispanic children selected across three communities for aggressiveness or reading difficulties. Children were then randomly assigned to an intervention or no intervention control condition. Intervention families received parent training (using a curriculum developed from the Incredible Years programme and translated into Spanish for benefit of Hispanic families) and children received social behaviour interventions (again, using instruments and programmes like the Diana Dinosaur suite) and supplementary reading instruction over a 2-year period. At the end of the intervention treated children were observably less negative in their social behaviour than controls. At a 1-year follow up treated children showed less teacher-rated internalising and less parent-rated coercive and antisocial behaviour than controls. Interestingly the intervention was as successful in decreasing conduct problems for Hispanic children as it was for European American children. This gives some credibility to claims that the materials and methods are highly transferable or generalisable.

Braswell *et al* (1997) (score 1++) screened 1<sup>st</sup> through 4th graders in 22 elementary schools in a suburban area to locate a sufficient sample with disruptive behaviour. Their eligible sample (309 subjects) participated in a multicomponent competence enhancement intervention (MCEI) or an information/attention control (IAC) condition over a 2-year period. The intervention used a similar programme to that developed by Tremblay *et al* (above). Three test points were undertaken but assessments were not supportive of the efficacy of the MCEI over control condition. Children in both groups rated themselves as improved in terms of increased adaptive skills and decreased school problems, but teacher and parent ratings of externalising behaviour did not yield evidence of positive change. Maturation rather than treatment may explain the observed positive changes in child self-ratings.

Waschbusch *et al* (2005) (score 1++) conducted a trial that randomly allocated 4 elementary schools to 4 conditions that aimed to compare the benefits of universal versus targeted programmes. Over a thousand children were involved between the ages of 4 and 12 over the course of one school year. The 4 conditions were a school wide intervention that incorporated universal and targeted treatment; a targeted school intervention delivered to individual students in regular and special education classrooms; a targeted home intervention delivered in home and regular classroom settings; and finally a control condition that did not receive a designated intervention. Results showed that the behaviour of disruptive children in all schools improved during the course of the year, with some evidence that interventions provided complementary effects. Part of the focus of this intervention was to explore the preference of parents for treatment modes. Take up rate of targeted interventions was much higher where the intervention was given at school rather than at home. Similarly relatively few parents took advantage of the parenting programme that was offered as part of the intervention, despite the fact that it was free, offered at multiple times, included child care and was based on well thought of programmes.

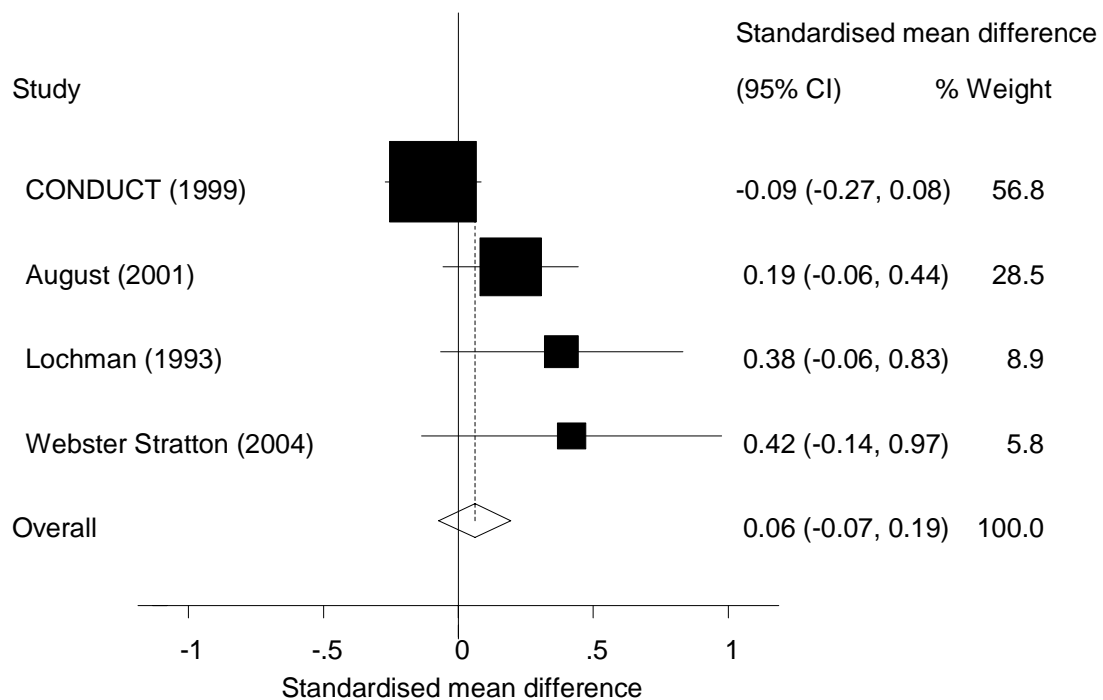
O'Donnell *et al* (1995) (quality rating 1++) describe a six year school based prevention programme which modified classroom teacher practices, offered parent training and provided child social-skill training. The classroom intervention involved teachers being trained in proactive classroom management and interactive teaching and cooperative learning methods. Length of training was not specified. The child intervention consisted of Grade 1 and 6 Cognitive and social skills training from classroom teachers, and, in Grade 6, Refusal skills training for 4 hours. The parent intervention was offered to parents of children in grade 1, 2, 3, 5 and 6 but was attended on a voluntary basis, delivered by project staff. Compared to a low-income control group children in the intervention group showed enhanced school commitment and class participation. Girls in the group showed lower rates of substance use in adolescence and boys showed increased social and schoolwork skills.

Fraser *et al* (2004) (score 1+) report a multicomponent intervention designed to disrupt developmental processes associated with conduct problems and peer rejection in childhood. A social skills training programme was used with 45 children in an intervention condition, comparing them to a wait list control (a relatively weak design). The home component involved giving 15 lessons for parents on child development, parent-child communication, family problem-solving and child discipline. The school component involved 30 lessons for children on social cognition and skills. Compared with control group, children in the intervention showed improvement on 5 of 6 outcome measures, but this could of course have been due to attention effects. In particular intervention children showed increases in cognitive concentration in the classroom and were less relationally aggressive with peers.

Atkins *et al* (2006) (quality rating 1-) studied the effectiveness of a school-based mental health service model, PALS (Positive Attitudes toward Learning in Schools). Working in 3 high poverty elementary schools in urban areas it focused on increasing initial and ongoing access to services, and promoting improved classroom and home behaviour for children referred for disruptive behaviour disorders. Classrooms were randomly assigned to either PALS or a referral to a neighbourhood mental health clinic with children identified by teacher referral and follow up interview. Class-wide behaviour management strategies were delivered by PALS staff. Class-wide methods to be used by the teacher included increased praise and reward and reduced punishment and criticism. In addition targeted reward programmes for 'high-need students' were supplementary to class-wide interventions. For parents increased access to school and interaction with school was encouraged and specific parenting strategies taught to parents of at-risk children. Results indicated significant service user engagement and retention for PALS (n=60) versus families referred to clinic (n=30), with over 80% of PALS families retained in services for 12 months.



Meta-analysis of social outcomes from four main studies where sufficient statistical information was available:



Study	SMD [95% Conf. Interval]			% Weight
CONDUCT (1999)	-0.093	-0.271	0.085	56.80
August (2001)	0.194	-0.057	0.445	28.47
Lochman (1993)	0.384	-0.065	0.833	8.91
Webster Stratton (20	0.420	-0.136	0.975	5.82
I-V pooled SMD	0.061	-0.073	0.195	100.00

Heterogeneity chi-squared = 7.56 (d.f. = 3)  $p = 0.056$

I-squared (variation in SMD attributable to heterogeneity) = 60.3%

Test of SMD=0 :  $z = 0.89$   $p = 0.373$

There is no significant heterogeneity ( $p > 0.05$  [borderline]).

The overall effect (SMD) is 0.06 with 95% confidence interval (-0.07, 0.20). which is not significant.

Table to show the outcomes selected for the meta-analysis:

STUDY	OUTCOME	GROUPS	Follow up	NOTE
Lochman JE et al	Social problem solving	AC v UA	3 yr follow up	
August GJ et al	Social competence	Int v cont	posttest 1	Z scores
CPPRG	Teacher rated social competence	Int v cont	end of grade 1	
Webster-Stratton et al	Child social competence at school	PTCTTT v cont	post	
Tremblay and Vitaro	Prosocial	Treatment v control	1987 (adj for 1984 data)	No SDs presented

For all scales a lower score indicates a worse condition.  
All studies used different scales to measure the above outcome.

General comment on the state of the evidence:

- Many interventions are based on theoretical understanding of the development of the conditions. Since onset and development is multiply determined (e.g. child factors, parenting practices, negative school experiences) it is reasoned that preventive interventions must also be comprehensive and target multiple risk and protective factors
- This section reports complex multicomponent interventions sustained over long periods. In cost terms the gains from these huge inputs look sparse but supporters continue to claim that the investment may be recouped in later years (a sleeper effect) as young people are averted from lives of delinquency and drug abuse.
- A number of studies point to the screening problems inherent in identifying an 'at risk' population for targeting at such a tender age. Significant numbers of 'false positives' appear to emerge from teacher and parent ratings.

#### Evidence Statement 6: Multi-component approaches

Given the intensive and often lengthy nature of the interventions described in some multicomponent programmes, gains would appear to be modest rather than startling at end of intervention and even at follow up.

Social problem solving and the development of positive peer relations are among the outcomes with the strongest programme effects.

Two studies (both rated 1++) showed improved academic achievement as significant outcomes of intervention.

Timing may be critical. Complex longitudinal multicomponent studies like that undertaken by the Metropolitan Area Child Study Research Group (quality rating 1++)

support the case for early intervention with aggressive disruptive children but also attest to the improved benefits of giving a booster intervention towards the end of primary education.

Significant 'school effects' were found in the Metropolitan Area Child Study Research Group (quality rating 1++) study. Better understanding of school effects, including impediments and resources, is called for.

Recruitment into parent programmes (and retention thereafter) is clearly a major challenge, even when every effort is made to make access easy. Given a choice, evidence from Waschbusch *et al* (quality rating 1++) indicates that parents may prefer targeted children to be treated at school rather than at home.

Some adverse effects are reported by Metropolitan Area Child Study Research Group (quality rating 1++) in terms of bringing aggressive hostile children together in small groups in later elementary stages. There is a suspicion (reinforced by other literature) that such settings may actually provide 'deviancy training' that provides reinforcement for aggression.

### 3.3 Supplementary research questions

#### 3.3.1. *What content is most effective?*

There is considerable consensus over the type of input that works. Learning from exploratory trials undertaken in the eighties and early nineties, the more complex multicomponent interventions, despite their different branding, offer a very similar mix of CBT and social skills training for children (often including attribution training to prevent negative attributions of hostile intent of others), training of parents in appropriate reinforcement and better methods of discipline, and training of teachers in the same.

That so many studies concur on what should be included as 'treatment' is not so surprising given that it is built on an evidence base of several decades of experimental work. What is perhaps more intuitively surprising is that this mix seems to be very similar whatever the problem or diagnosis, i.e. for depression and anxiety as well as for externalising behaviours like ODD and CD.

#### 3.3.2. *What is the frequency, length and duration of an effective intervention?*

The majority of interventions offer weekly or twice weekly sessions to pupils, with similar provision for parents. Some studies have experimented with brief interventions (8 to 10 weeks). These seem to work well for children with anxiety problems and emotional disorders. However, conduct disorders are seen as being deep-rooted and intense and some reported interventions start early (at kindergarten) and continue throughout primary school, albeit sporadically. None of the literature suggests that single brief interventions have any worthwhile role in preventing or remediating conduct problems. The Metropolitan Area Child Study Research Group (2002) (quality score 1++) provide sound evidence of the benefits of 'starting early' in relation to targeted 'at risk' children, provided that this is subsequently topped up at later primary stages. Insufficient evidence exists generally, however, regarding how often early interventions need to be topped up with further work.

### *3.3.3. Is it better if teachers, school support staff, or a specialist (such as a psychologist or school nurse) delivers the intervention?*

Almost all of the interventions included in this review are devised and largely delivered by psychologists, particularly in the early part of the period studied. As interventions have become more complex teachers have been recruited into the trials, but often as subjects rather than as planning or delivery partners. There is no evidence of the involvement of school nurses in delivery, but with the exception of two Australian and one Spanish study, all studies are US based and reflect the different personnel and structures of American education.

Teachers are frequently used at the start of intervention to rate children's behaviour as part of the initial screening to identify target populations. Consequently they are also used at intervention end and at follow up to provide comparative ratings of children's wellbeing or behaviour. Evidence arises from a number of studies about the unreliability of teacher ratings. Teachers showed a relatively poor concordance with other measures in picking up symptoms for internalising disorders (e.g. anxiety, depression, PTSD), where children are withdrawing rather than 'acting out'. Even in relation to the externalising disorders there is evidence in the Conduct Problems Prevention Research Group work, for instance, of teachers generating a large number of 'false positives', and other studies noting that intervention effects are 'damped' down by teacher ratings of student behaviour post intervention, which are often 'out of synch' with positive findings on other measures. There may be implications here for teacher training. Miranda *et al* (2002, quality rating 1+) found that a programme specifically targeted at teachers to train them to be more skilled in recognising the symptoms of ADHD had little effect on the subsequent rate of identification of the problem. Webster-Stratton *et al*'s work (Webster-Stratton *et al* 2001; Reid *et al* 2003; Webster-Stratton and Reid 2003; Webster-Stratton *et al* 2003) (quality rating 1++), however, showed more positive outcomes from teacher training. They reported that the intervention had changed teacher behaviour and attitudes towards conduct disorder and many parents who had previously reported extremely adverse relationships with schools and teachers noted a distinct improvement when they were part of the arm of the trial that involved teachers too. The authors note that training teachers provides one of the least costly of conditions to implement, but that their evidence did not test this condition on its own for effect. There is no evidence from other included studies of the impact of teacher training alone in providing effective intervention.

### *3.3.4. What is the role of governors?*

There is no evidence in the included literature about the role of governors. The interesting evidence emerging about school effects (Metropolitan Area Child Study Research Group 2002) (quality score 1++) needs further exploration as we move forward in applying programmes to real life settings, and governors may have a role in determining considerations of both resource availability and ethos.

### *3.3.5. What is the role of parents?*

Work with parents is seen as essential for ensuring the best effects of offering children an intervention, given that they can support and reinforce at home the messages children are learning at school if they are clear what is involved. Thus, across a number of studies intervention effects increase when parents are recruited to the project as well (Webster-Stratton *et al* 2001; Reid *et al* 2003; Webster-Stratton and Reid 2003; Webster-Stratton *et al* 2003)

(quality rating 1++). However, a number of significant problems emerge in considering the role of parents.

As with teachers, parents are often not very good at identifying children's internal mental states. A number of studies here report lower levels of parent identification of anxiety states and depression, a finding congruent with that by Angold (1989). Hodges (1993) also notes that the accuracy of parental ratings is relative to the pathology under discussion.

More obviously, with some pathologies, such as ODD and CD, parents may be heavily implicated in the problems that the child is experiencing and may be very resistant to being recruited into programmes which attempt to change their behaviour as well as that of their children. Thus many of the multicomponent studies report problems in recruiting and retention and attendance of parents to such schemes. The provision of transport, childcare and even payment schemes are all offered in interventions with varying degrees of success. Waschbusch *et al* (2005) (score 1++), in a trial which specifically researched parent views, comment on the preference of their subjects who would rather their behaviour-disordered children were treated at school than at home.

### *3.3.6. What are the barriers to – and facilitators of – effective implementation?*

The majority of included studies are clinical trials and therefore exploratory. Only one or two of the later multicomponent interventions begin to approach the stage IV of Campbell's (2000) implementation framework in which anything useful can be said about full programme implementation. Whilst some of the interventions which appear to be effective in treating anxiety and emotional disorders are brief and thus relatively economical, the implied costs of some of the long-term multicomponent interventions aimed at preventing the development of conduct disorder or delinquent behaviour in targeted 'at risk' children are clearly enormous. Only the Metropolitan Area Child Study Research Group (2002) (quality score 1++) begin to comment on this in any detail, noting the school effects that were beginning to emerge in their study, based at least in part, on resource constraints.

### *3.3.7. Does the intervention lead to any adverse or unintended effects?*

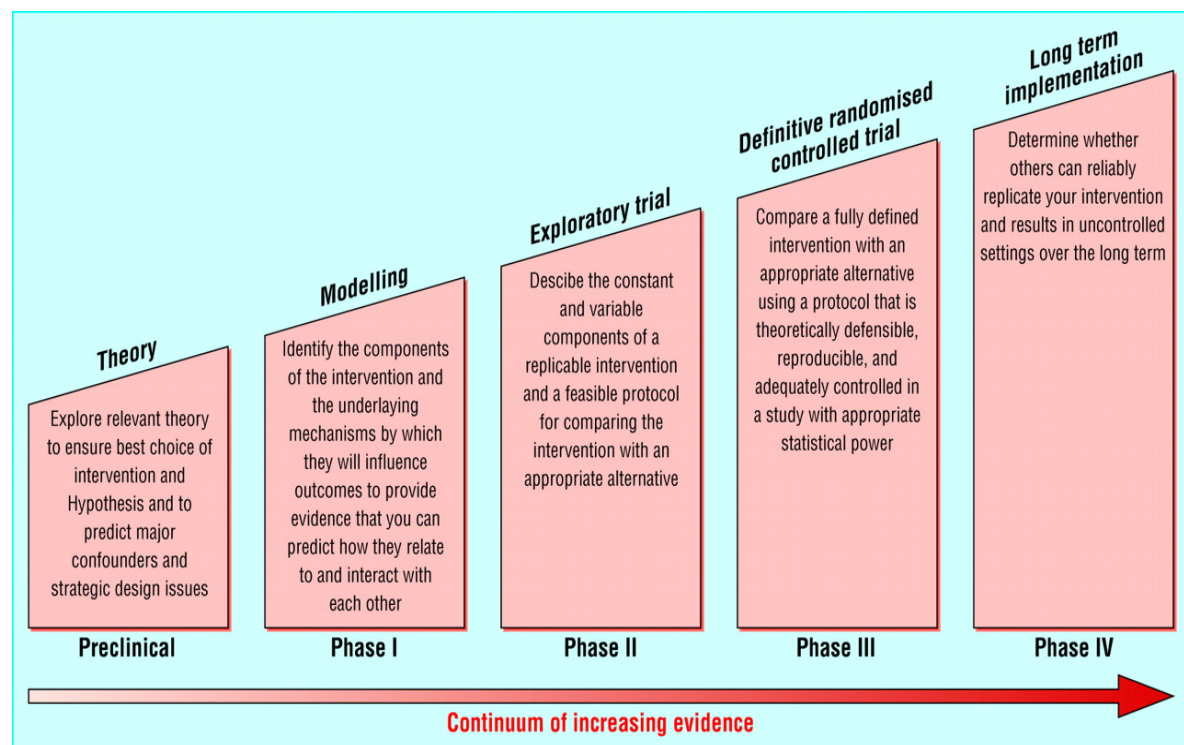
A number of studies which relate to interventions with targeted children at risk for developing conduct disorders (Lochman 1992; Lochman *et al* 1993; Lochman and Wells 2002, 2003, 2004) (quality rating 1++) utilise peer norming methods or pairing of aggressive children with non-aggressives. This is done both to reduce the stigmatising effect of being identified and treated as conduct disorder, but also to provide such children with more 'normal' role models and to demonstrate more prosocial skills. Most studies are completely silent on the ethical dilemmas around this practice and do not discuss the level of parent or child permission obtained for this work.

Outcomes for the aggressive children would undoubtedly seem to be improved as a consequence. August, for instance, (August *et al* 2001, 2002, 2003a, 2003b) (quality rating 1++) who also uses peer normalising techniques, reports findings that show treated children being less likely to choose delinquent friends as a consequence of their re-socialisation through this method. The majority of such studies using peer norms rarely report findings on the non aggressive children and their welfare, though Desbiens and Royer (2003) (quality rating 1-) and Prinz *et al* 1994 (quality rating 1++), in their reports of studies, do comment that the welfare of these individuals was unaffected.

There is some evidence (Metropolitan Area Child Study Research Group 2002) (quality score 1++) that there may be adverse effects accruing from treating troubled children using small group work when it is delivered too late in the primary school career, when it takes place in communities already under a great deal of stress and when it does not adequately differentiate between children's needs – the notion that some interventions can act as 'deviancy training' needs to be carefully examined. The authors discuss how, in some ways, this seems to be linked to complex issues about whether aggression is seen as a sign of psychopathy or as a characteristic denoting resilience in settings where children are taught to 'stand up for themselves' by their parents. More work is clearly needed on this topic.

### 3.4 Information gaps, exclusions and caveats

There are noticeable shifts in quality and focus of evidence as we look across the period under scrutiny here. The period prior to 1990 (our start point) and the early 90s themselves saw a proliferation of small-scale studies (mostly US based). Early interventions use weak controls (no treatment or wait list), are small and underpowered and focus on some aspects of the problem (e.g. disruptive, aggressive boys) to the neglect of the broader picture of mental health problems. Later studies described are often multi component studies, many with complex longitudinal designs, more test conditions and much larger samples leading to better-powered analyses. We can refer to the model developed by Campbell *et al* (2000) to describe the stages in the development of complex interventions.



As applied to the field covered in this review, much of the early work we looked at clearly falls into the phase II (exploratory trials) phase. Later work demonstrates the move into phase III (definitive randomised controlled trial).

Very little work initiated or carried out by teachers appears in the review. This is not to say that it does not exist, but it is clearly less likely (because of methodological constraints) to meet our quality criteria for inclusion.

The literature only recently starts to report the 'long game' of programme interventions and evaluations and evidence over the whole piece is still lacking, not least because a fundamental aspect of many of the programmes is to 'start early' (at kindergarten level) and wait for 'sleepers' effects, as children emerge into adolescence and mental health problems begin to become manifest in more serious delinquency – funders need a lot of faith in these circumstances

Significant effects have been shown as benefits from such interventions, but the benefits or effects are often experienced in distal ways, and not in respect of those variables or issues which have been the focus of the intervention, e.g. aggression may show no reduction, but young people may perform better on self-esteem scales, may have better peer relations, may perform better in school tests of performance.

A number of authors comment that these trials of programmes deliver resources at a level that could not be sustained under normal circumstances, and so a significant challenge in the years ahead is the movement into phase IV, where the implementation of programmes in real life circumstances is undertaken. These challenges begin to be signalled in pieces which point, for instance, to evidence of significant school effects emerging in data, and in concerns expressed over the difficulty in ensuring intervention fidelity when large numbers of only partially trained staff become involved in aspects of delivery.

These aspects of generalisability/applicability seem more important than other usual considerations as to whether the interventions described are culturally transmissible between jurisdictions (there is considerable evidence in fact that the interventions themselves travel reasonably well once suitably adapted).

## References

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### A Primary Studies Included in Review (n=48)

- 1 Atkins MS, et al. School-Based Mental Health Services for Children Living in High Poverty Urban Communities. *Administration and policy in mental health and mental health services* 2006; 33(2).
- 2 AUGUST
  - a) August GJ, et al. An Integrated Components Preventive Intervention for Aggressive Elementary School Children: The Early Risers Program. *Journal of Consulting and Clinical Psychology* 2001; 69(4):626.
  - b) August GJ. The Early Risers Longitudinal Prevention Trial: Examination of 3-Year Outcomes in Aggressive Children With Intent-to-Treat and As-Intended Analyses. *Psychology of Addictive Behaviours* 2002; 16(4):27-39.
  - c) August GJ, et al. Parcelling Component Effects of a Multifaceted Prevention Program for Disruptive Elementary School Children. *Journal of Abnormal Child Psychology* 2003; 31(5):515-527.
  - d) August GJ, et al. Four Years of the Early Risers Early Age Targeted Preventive Intervention: Effects on Aggressive Children's Peer Relations. *Behaviour Therapy* 2003; 34(4):453-470.
- 3 Barkley R, et al. Multi-method Psycho-educational Intervention for Preschool Children with Disruptive Behaviour: Preliminary Results at Post-treatment. *Journal of Child Psychiatry* 2000; 41(3):319-332.
- 4 Barrera M, et al. Early Elementary School Intervention to Reduce Conduct Problems: A Randomized Trial with Hispanic and Non-Hispanic Children. *Prevention Science* 2002; 3(2):83-94.
- 5 Bernstein GA, et al. School-Based Interventions for Anxious Children. *Journal of American Academy of Child Adolescent Psychiatry* 2005; 44(11):1118.
- 6 Bloomquist ML, August GJ, Ostrander R. Effects of a school-based cognitive-behavioural intervention for ADHD children. *Journal of Abnormal Child Psychology* 1991; 19(5):591-605.
- 7 Braswell L, August G, Bloomquist M, Realmuto G, Skare S, Crosby R. School-based secondary prevention for children with disruptive behaviour: Initial outcomes. *Journal of Abnormal Child Psychology* 1997; 25:197-208. Ref ID: 1666
- 8 CONDUCT PROBLEMS PREVENTION RESEARCH GROUP
  - a) Conduct Problems Prevention Research Group. Initial Impact of the Fast Track Prevention Trial for Conduct Problems: I. The High-Risk Sample. *Journal of Consulting and Clinical Psychology* 1999; 67(5):631-647.



- b) Conduct Problems Prevention Research Group. Evaluation of the First 3 Years of the Fast Track Prevention Trial with Children at High Risk for Adolescent Conduct Problems. *Journal of Abnormal Child Psychology* 2002; 30(1):19-35.
- c) Conduct Problems Prevention Research Group. The Effects of the Fast Track Program on Serious Problem Outcomes at the End of Elementary School. *Journal of Clinical Child and Adolescent Psychology* 2004; 33(4):650-661.

## 9 DADDS

- a) Dadds MR, Spence SH, Holland DE, Barrett PM, Laurens KR. Prevention and early intervention for anxiety disorders: A controlled trial. *Journal of Consulting & Clinical Psychology* 1997; 65:627-635.
  - b) Dadds MR, Holland DE, Laurens KR, Mullins M, Barrett PM, Spence SH. Early intervention and prevention of anxiety disorders in children: Results at 2-year follow-up. *Journal of Consulting & Clinical Psychology* 1999; 67:145-150.
- 10 Desbiens N and Royer E. Peer Groups and Behaviour Problems. *Emotional and Behavioural Difficulties* 2003; 8(2):120-139.
  - 11 Fraser MW, et al. Conduct Problems and Peer Rejection in Childhood: A Randomized Trial of the Making Choices and Strong Families Programs. *Research on Social Work Practice* 2004; 14(5):313-324.

## 12 HUDLEY

- a) Hudley C and Graham S. An Attributional Intervention to Reduce Peer-directed Aggression among African-American Boys. *Child Development* 1993; 64:124-138.
  - b) Hudley C and Friday J. Attributional Bias and Reactive Aggression. *American Journal of Preventive Medicine* 1996; 12(5):75-81.
- 13 Jaycox L , Gillham J, Reivich K, Seligman M. Prevention of depressive symptoms in school children: Two-year follow-up. *Psychological Science* 1995; 6:343-351.
  - 14 Kam Chi-Ming, et al. Sustained Effects of the PATHS Curriculum on the Social and Psychological Adjustment of Children in Special Education. *Journal of Emotional and Behavioural Disorders* 2004; 12(2):66-78.
  - 15 King C and Kirschenbaum D. An experimental evaluation of a school-based program for children at risk: Wisconsin early intervention. *Journal of Community Psychology* 1990; 18:167-177.
  - 16 King NJ, et al. Cognitive-Behavioural Treatment of School-Refusing Children: A Controlled Evaluation. *American Academy of Child Psychology* 1998; 37(4):395-403.
  - 17 Larkin R and Thyer BA. Evaluating Cognitive-Behavioural Group Counselling to Improve Elementary School Students' Self-Esteem, Self-Control and Classroom Behaviour. *Behavioural Interventions* 1999; 14(3):147-161.

- 18 Liddle B and Spence SH. Cognitive-Behaviour Therapy with Depressed Primary School Children: A Cautionary Note. *Behavioural Psychotherapy* 1990; 18(2):85-102.
- 19 LOCHMAN
- a) Lochman JE. Cognitive-behavioural intervention with aggressive boys: Three-year follow-up and preventive efforts. *Journal of Consulting and Clinical Psychology* 1992; 60:426-432.
  - b) Lochman J, Coie J, Underwood M, Terry R. Effectiveness of a social relations intervention program for aggressive and non-aggressive, rejected children. *Journal of Consulting & Clinical Psychology* 1993; 61:1053-1058.
  - c) Lochman JE, et al. The Coping Power Program at the Middle-School Transition: Universal and Indicated Prevention Effects. *Psychology of Addictive Behaviours* 2002; 16(45):40-54.
  - d) Lochman JE and Wells KC. Effectiveness of the Coping Power Program and of Classroom Intervention with Aggressive Children: Outcomes at a 1 Year Follow Up. *Behaviour Therapy* 2003; 34:493-515.
  - e) Lochman JE and Wells KC. The Coping Power Program for Preadolescent Aggressive Boys and Their Parents: Outcome Effects at the 1 Year Follow-Up. *Journal of Consulting and Clinical Psychology* 2004; 72(4):571-578.
- 20 Metropolitan Area Child Study Research Group. A Cognitive-Ecological Approach to Preventing Aggression in Urban Settings: Initial Outcomes for High-Risk Children. *Journal of Consulting and Clinical Psychology* 2002; 70(1):179-194.
- 21 Miranda A, et al. Effectiveness of a School-Based Multi-component Program for the Treatment of Children with ADHD. *Journal of Learning Disabilities* 2002; 35(6):546-562.
- 22 Mize J, et al. A cognitive-social learning approach to social skills learning with low-status preschool children. *Developmental Psychology* 1990.
- 23 O'Donnell JO, Hawkins D, Catalano RF, Abbott RD, Day E. Preventing school failure, drug use, and delinquency among low-income children: Long-term intervention in elementary schools. *American Journal of Orthopsychiatry* 1995; 65:87-100.
- 24 Prinz RJ, Blechman EA, Dumas JE. An evaluation of peer coping-skills training for childhood aggression. *Journal of Clinical Child Psychology* 1994; 23:193-203.
- 25 Stein B, et al. A Mental Health Intervention for Schoolchildren Exposed to Violence. *Journal of American Medical Association* 2003; 290(5):603-611.
- 26 Stolberg AL and Mahler J. Enhancing Treatment Gains in a School-Based Intervention for Children of Divorce Through Skill Training, Parental Involvement and Transfer Procedures. *Journal of Consulting and Clinical Psychology* 1994; 62(1):147-156.

## 27 VITARO & TREMBLAY

- a) Tremblay RE, et al. Can Disruptive Boys be Helped to Become Competent? *Psychiatry* 1991; 54(2):148-161
  - b) Vitaro F and Tremblay R. Impact of a prevention program on aggressive children's friendships and social adjustment. *Journal of Abnormal Child Psychology* 1994; 22:457-475.
  - c) Tremblay RE, et al. A Bimodal Preventive Intervention for Disruptive Kindergarten Boys: Its Impact Through Mid-Adolescence. *Journal of Consulting and Clinical Psychology* 1995; 63(4):560-568.
  - d) Vitaro F, et al. Prevention of School Dropout Through the Reduction of Disruptive Behaviours and School Failure in Elementary School. *Journal of School Psychology* 1999; 37(2):205-226.
- 28 Waschbusch DA, et al. The Behaviour Education Support and Treatment (BEST) School Intervention Program: Pilot Project Data Examining School-wide, Targeted-School and Targeted-Home Approaches. *Journal of Attention Disorders* 2005; 9(1):313-322.

## 29 WEBSTER-STRATTON

- a) Webster-Stratton C, et al. Social Skills and Problem-solving Training for Children with Early-onset Conduct Problems: Who Benefits? *Journal of Child Psychiatry* 2001; 42(7):943-952.
  - b) Webster-Stratton C, et al. Treating Conduct Problems and Strengthening Social and Emotional Competence in Young Children: The Dina Dinosaur Treatment Program. *Journal of Emotional and Behavioural Disorders* 2003; 11(3):130-143.
  - c) Reid J, et al. Follow-Up of Children who Received the Incredible Years Intervention for Oppositional-Defiant Disorder: Maintenance and Prediction of 2-Year Outcome. *Behaviour Therapy* 2003; 34:471-491
  - d) Webster-Stratton C, et al. Treating Children with Early-Onset Conduct Problems: Intervention Outcomes for Parent, Child and Teacher Training. *Journal of Clinical Child and Adolescent Psychology* 2004; 33(1):105-124.
- 30 Weiss B, et al. Efficacy of the RECAP Intervention Program for Children with Concurrent Internalizing and Externalizing Problems. *Journal of Consulting and Clinical Psychology* 2003; 71(2):364-374.
- 31 Weisz JR, et al. Brief Treatment of Mild-to-Moderate Child Depression Using Primary and Secondary Control Enhancement Training. *Journal of Consulting and Clinical Psychology* 1997; 65(4):703-707.

## B Papers excluded from the review

No.	Papers Excluded from Review (n=82)	Reason for Exclusion
1	Aber J, Jones S, Brown J, Chaudrey N, Samples F. Resolving conflict creatively: Evaluating the developmental effects of a school-based violence prevention program in neighbourhood and classroom context. <i>Development and Psychopathology</i> 1998; 10:187-213	Late
2	Aber JL, Brown JL, Chaudry N, Jones SM, Samples F. The Evaluation of the Resolving Conflict Creatively Program: an overview. <i>American Journal of Preventive Medicine</i> 1996; 12(5 Suppl):82-90	Not RCT
3	Allen J, Philliber S, Herrling S, Kuperminc G. Preventing teen pregnancy and academic failure: Experimental evaluation of a developmentally based approach. <i>Child Development</i> 1997; 64:729-742	Age Criterion
4	Andrews DW, Soberman LH, Dishion TJ. The Adolescent Transition Program: A school-based program for high-risk teens and their parents. <i>Education and Treatment of Children</i> 1995; 18:478-498	Age Criterion
5	Battistich V, Schaps E, Watson M, Solomon D. Prevention effects of the Child Development Project: Early findings from an ongoing multi-site demonstration trial. <i>Journal of Adolescent Research</i> 1996; 11:12-35	Not RCT
6	Bierman KL, Coie JD, Dodge KA, Greenberg MT, Lochman JE, McMahon RJ et al. Merging universal and indicated prevention programs: The fast track model. <i>Addictive Behaviours</i> 2000; 25(6):913-927	Other
7	Brener N D, Burstein GR, DuShaw ML, Vernon ME, Wheeler L, Robinson J. Health services: results from the School Health Policies and Programs Study 2000. <i>Journal of School Health</i> 2001; 71(7):294-304	Primary Research Criterion
8	Brener ND, Martindale J, Weist MD. Mental health and social services: results from the School Health Policies and Programs Study 2000. <i>Journal of School Health</i> 2001; 71(7):305-312	Primary Research Criterion
9	Bruns E, Goldstein J, Schaeffer CM, Simpson Y, Stephan SH, Weist M. Overcoming challenges to using evidence-based interventions in schools. <i>Journal of Youth and Adolescence</i> 2005; 34(1):15-22	Primary Research Criterion

10	Catron T and Weiss B. The Vanderbilt School-based Counseling Program: an interagency, primary-care model of mental health services. Journal of Emotional and Behavioural Disorders 1994; 2(4):247-253	Not RCT
11	Cavell TA and Hughes JN. Secondary Prevention as Context for Assessing Change Processes in Aggressive Children. Journal of School Psychology 2000; 38(3):199-235	Not RCT
12	Conduct Problems Prevention Research Group. A developmental and clinical model for the prevention of conduct disorder. The FAST Track Program. Development and Psychopathology 1992; 4:509-527	Primary Research Criterion
13	Conduct Problems Prevention Research Group. FAST Track update. National Institute of Mental Health, Rockville, MD. 1999	Other
14	Conduct Problems Prevention Research Group. Initial impact of the Fast Track prevention trial for conduct problems: II. Classroom effects. Journal of Consulting & Clinical Psychology 1999; 67:648-657	Targeting Criterion
15	Costello EJ, Angold A, Burns BJ, Stangl DK, Tweed DL, Erkanli A, Worthman CM. The Great Smoky Mountains Study of Youth: Goals, design, methods and the prevalence of DSM-III-R disorders. Archives of General Psychiatry 1996; 53:1129-1136	Not RCT
16	Cowen EL, Hightower AD, Pedro-Carroll JL, Work WC, Wyman PA, Haffey WG. School-based prevention for children at risk: The primary mental health project. American Psychological Association 1996	Not RCT (Book)
17	Cowen EL, Wyman PA, Work WC, Iker MR. A preventive intervention for enhancing resilience among highly stressed urban children. The Journal of Primary Prevention 1995; 15:247-260.	Not RCT
18	Cunningham C, Cunningham L, Martorelli V, Tran A, Young J, Zacharias R. The effects of primary division, student-mediated conflict resolution programs on playground aggression. Journal of Child Psychology, Psychiatry, and the Allied Disciplines 1998; 39:653-662	Not RCT
19	De Cuyper S et al. Treating Depressive Symptoms in Schoolchildren. European Child and Adolescent Psychiatry 2004; 13(2):105-114	Setting Criterion
20	Dishion TJ and Andrews DW. Preventing escalation in	Age Criterion

	problem behaviours with high-risk young adolescents: Immediate and 1-year outcomes. <i>Journal of Consulting and Clinical Psychology</i> 1995; 63:538-548	
21	Dolan L, Kellam S, Brown C, Werthamer-Larson L, Rebok G, Mayer L, Laudolff J, Turkkan Ford C, Wheeler L. The short-term impact of two classrooms-based preventive interventions on aggressive and shy behaviours and poor achievement. <i>Journal of Applied Developmental Psychology</i> 1993; 14:317-345	Targeting Criterion
22	Dubow EF, Schmidt D, McBride J, Edwards S, Lynne Merk F. Teaching children to cope with stressful experiences: Initial implementation and evaluation of a primary prevention program. <i>Journal of Clinical Child Psychology</i> 1993; 22(4):428-440	Targeting Criterion
23	DuPaul GJ, Weynandt LL. School-Based Intervention for Children with Attention Deficit Hyperactivity Disorder: Effects on Academic, Social, and Behavioural Functioning. <i>International Journal of Disability, Development and Education</i> 2006; 53(2):161-176	Primary Research Criterion
24	Dupper D and Krishef C. School-based social-cognitive skill training for middle school students with school behaviour problems. <i>Children and Youth Services Review</i> 1993; 15:131-142	Age Criterion
25	Elias MJ, Gara MA, Schuyler TF, Branden-Muller LR, Sayette MA. The promotion of social competence: Longitudinal study of a preventive school-based programme. <i>American Journal of Orthopsychiatry</i> 1991; 61:409-417	Targeting Criterion
26	Fantuzzo J, et al. Peer-Mediated Treatment of Socially Withdrawn Maltreated Preschool Children: Cultivating Natural Community Resources. <i>Journal of Clinical Child and Adolescent Psychology</i> 2005; 34(2):320-325	Age Criterion
27	Felner RD, Brand S, Adan AM, Mulhall PF, Flowers N, Sartain B, DuBois DL. Restructuring the ecology of the school as an approach to prevention during school transitions: Longitudinal follow-ups and extensions of the school transitional environment project (STEP). <i>Prevention in Human Services</i> 1993; 10:103-136	Targeting Criterion
28	Fox CL and Boulton MJ. Evaluating the effectiveness of a social skills training (SST) programme for victims of bullying. <i>Educational Research</i> 2003; 45(3):231-247	Not RCT

29	Gossette RL and O'Brien RM. Efficacy of rational emotive therapy (RET) with children: a critical re-appraisal. <i>Journal of Behaviour Therapy &amp; Experimental Psychiatry</i> 1993; 24(1):15-25	Not RCT
30	Greenberg M, Kusche C, Cook E, Quamma J. Promoting emotional competence in school-aged children: The effects of the PATHS curriculum. <i>Development and Psychopathology</i> 1995; 7:117-136	Targeting Criterion
31	Grossman D, Neckerman H, Koepsell T, Liu P, Asher K, Beland K, Frey K, Rivara F. Effectiveness of a violence prevention curriculum among children in elementary school: A randomized controlled trial. <i>Journal of the American Medical Association</i> 1997; 277:1605-1611	Targeting Criterion
32	Grossman JB and Tierney JP Does mentoring work? An impact study of the big brothers big sister program. <i>Evaluation Review</i> 1998; 22:403-426	Age Criterion
33	Guerra NG and Slaby RG. Cognitive mediators of aggression in adolescent offenders: II. Intervention <i>Developmental Psychology</i> 1990; 26:269-277	Age Criterion
34	Hawkins JD, Catalano RF, Kolsterman R, Abbott R, Hill K. Preventing adolescent health-risk behaviours by strengthening protection during childhood. <i>Archives of Pediatric and Adolescent Medicine</i> 2007; 153:226-234.	Not RCT
35	Hawkins JD, Von Cleve E, Catalano RF. Reducing early childhood aggression: Results of a primary prevention program. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> 1991; 30:208-217	Targeting Criterion
36	Health Evidence Network. What is the evidence on school health promotion in improving health or preventing disease?	Targeting Criterion
37	Henderson P, Kelbey T, Engerbreston K. Effects of a stress-control program on children's locus of control, self-concept, and coping behaviour. <i>The School Counsellor</i> 1992; 40:125-130	Targeting Criterion
38	Hirschstein M and Frey KS. Promoting Behaviour and Beliefs that Reduce Bullying: The Steps to Respect Program. <i>Journal</i> 2006	Targeting Criterion
39	Hudley C and Friday J. School-based interventions for	Primary Research Criterion

	aggressive African-American boys. Applied & Preventive Psychology 1995; 4:185-195	
40	Kamps D et al. A Prevention Program for Students with or At Risk of ED: Moderating Effects of Variation in Treatment and Classroom Structure. Journal of Emotional and Behavioural Disorders 2000; 8(3):141-154	Not RCT
41	Kamps D et al. Social Skills Interventions for Young At-Risk Students: A 2-Year Follow-Up Study. Journal of Behavioural Disorders 2000; 25(4):310-324	Not RCT
42	Kellam S, Rebok G, Ialongo N, Mayer L L. The course and malleability of aggressive behaviour from early first grade into middle school: Results of a developmental epidemiologically-based preventive trial. Journal of Child Psychology, Psychiatry, and the Allied Disciplines 1994; 35:259-281	Targeting Criterion
43	Kellam SG, Rebok GW, Mayer LS, Ialongo N, Kalodner CR. Depressive symptoms over first grade and their response to a developmental epidemiological based preventive trial aimed at improving achievement. Development and Psychopathology 1994; 6:463-481	Targeting Criterion
44	Kellam SG, Ling, X., Merisca R., Brown CH, Ialongo N. The effect of the level of aggression in the first grade classroom on the course and malleability of aggressive behaviour into middle school. Development and Psychopathology 1998; 10:165-185	Targeting Criterion
45	Kendall PC, Reber M, McLeer S, Epps J. Cognitive-behavioural treatment of conduct-disordered children. Cognitive Therapy and Research 1990; 14:279-297	Setting Criterion
46	Leaf PJ, Alegria M, Cohen P, Goodman SH, Horowitz S, Hoven CW, Narrow WE, Vaden-Kiernan M, Regier DA. Mental health service use in the community and schools: Results from the four-community MECA study. Journal of the American Academy of Child and Adolescent Psychiatry 1996; 35:889-896	Not RCT
47	Lehr CA, et al. Addressing Student Engagement and Truancy Prevention During the Elementary School Years: A Replication Study of the Check & Connect Model. Journal of Education for Students Placed at Risk 2004; 9(3):279-301	Not RCT
48	Lock S and Barrett PM. A longitudinal study of	Late



	developmental differences in universal preventive intervention for child anxiety. Behaviour Change 2003; 20(4):183-199	
49	Lohaus A and Klein-Hessling J. Coping in childhood: A comparative evaluation of different relaxation techniques. Anxiety, Stress and Coping 2000; 13:187-211	Targeting Criterion
50	Lohaus A, Klein-Hessling J, Shebar S. Stress management for elementary school children: A comparative evaluation of different approaches. Revue Européenne de Psychologie Appliquée 1997; 47:157-161	Language Criterion
51	Lonigan. Special issue on empirically supported psychosocial interventions for children. Journal of Clinical Child Psychology 1998; 27:138-226	Primary Research Criterion
52	Luk ES, et al. Comparison of treatments of persistent conduct problems in primary school children: a preliminary evaluation of a modified cognitive-behavioural approach. Australian and New Zealand Journal of Psychiatry 1998; 32(3):379-386	Setting Criterion
53	Lynch KB, Geller SR, Schmidt MG. Multi-Year Evaluation of the Effectiveness of a Resilience-Based Prevention Program for Young Children. Journal of Primary Prevention 2004; 24(3):335-353	Targeting Criterion
54	Malgady RG. Culturally Sensitive Psychotherapy for Puerto Rican Children and Adolescents: A Program of Treatment Outcome Research. Journal of Consulting and Clinical Psychology 1990; 58(6):704-712	Topic Criterion
55	Mason MJ. School-based health clinics and the role of mental health services: A review of the literature. Journal of Health & Social Policy 1998; 10(2):1-13	Not RCT
56	Middleton MB and Cartledge G. The Effects of Social Skills Instruction and Parental Involvement on the Aggressive Behaviours of African American Males. Behaviour Modification 1995; 19(2):192-210	Not RCT
57	Nelson R, et al. Effects of a Pre-reading Intervention on the Literacy and Social Skills of Children. Exceptional Children 2005; 72(1):29-45	Topic Criterion
58	Olweus D. Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention	Not RCT (book)

	program IN Pepler, DJ and Rubin, K (eds) The development and treatment of childhood aggression. Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc. 1991	
59	Panayiotopoulos C. A follow-up of a home and school support project for children with emotional and behavioural difficulties. Emotional and Behavioural Difficulties 2004; 9(2):85-98	Topic Criterion
60	Panayiotopoulos C and Kerfoot M. A Home and School Support Project for Children Excluded from Primary and First Secondary School. Child and Adolescent Mental Health 2004; 9(3):109-114	Topic Criterion
61	Pepler D, King G, Craig W, Byrd B, Bream L. The development and evaluation of a multi-system social skills group training program for aggressive children. Child and Youth Care Forum 1995; 24:297-313	Setting Criterion
62	Pffiffner L and McBurnett K. Social Skills Training with Parent Generalization: Treatment Effects for Children with Attention Deficit Disorder. Journal of Consulting and Clinical Psychology 1997; 65(5):749-757	Setting Criterion
63	Reid J, Eddy M, Fetrow R, Stoolmiller M. Description and immediate impacts of a preventive intervention for conduct problems. American Journal of Community Psychology 1999; 27:483-517	Targeting Criterion
64	Renwick F and Spalding B. 'A Quiet Place' project: an evaluation of early therapeutic intervention within mainstream schools. British Journal of Special Education 2002; 29(3):144-149	Not RCT
65	Rones M and Hoagwood K. School-based mental health services: a research review. Clinical Child & Family Psychology Review 2000; 3(4):223-241	Not RCT
66	Rosenbaum D, Flewelling R, Bailey S, Ringwalt C, Wilkinson D. Cops in the classroom: A longitudinal evaluation of Drug Abuse Resistance Education (DARE). Journal of Research in Crime and Delinquency 1994; 31:3-31	Topic Criterion
67	Ryan RM and Powelson CL. Autonomy and relatedness as fundamental to motivation and education. Journal of Experimental Education Vol 1991; 60(1):49-66	Primary Research Criterion
68	Sage R. Supporting Primary and Secondary Pupils with Communication and Behaviour Problems. International	Topic Criterion

	Journal of Language 2001; 36:423-428	
69	Sandler IN, West SG, Baca L, Pillow DR, Gersten JC, Rogosch F, Virdin L, Beals J, Reynolds KD, Kallgren C, Tein J, Kriege G, Cole. Linking empirically based theory and evaluation: The family bereavement program. American Journal of Community Psychology 1992; 20:491-521	Setting Criterion
70	Serna L, Nielsen E, Lambros K, Forness S. Primary prevention with children at risk for emotional or behavioural disorders: Data on a universal intervention for Head Start classrooms. Behavioural Disorders Vol 2000; 26(1):70-84	Targeting Criterion
71	Serna LA, Lamros K, Nielsen E, Forness SR. Head Start children at risk for emotional or behavioural disorders: Behaviour profiles and clinical implications of a primary prevention program. Behavioural Disorders Vol 2002; 27(2):137-141	Targeting Criterion
72	Shelton TL, et al. Multi-method Psycho-educational Intervention for Preschool Children with Disruptive Behaviour: Two-Year Post-Treatment Follow Up. Journal of Abnormal Child Psychology 2000; 28(3):253-266	Age Criterion
73	Strayhorn J and Bickel D. A Randomized Trial of Individual Tutoring for Elementary School Children with Reading and Behaviour Difficulties. Psychological Reports 2003; 92(2):427-444	Not RCT
74	Suter DP, et al. Evaluatoin of the Primary Mental Health Project Model of Early Identification and Prevention of School Adjustment Problems. Special Service in the Schools 1999; 4(3/4):89-107	Date Criterion
75	Taubman M, et al. The effectiveness of a group discrete trial instructional approach for preschoolers with developmental disabilities. Research in Developmental Disabilities 2001; 22(3):205-219	Not RCT
76	Trager M, Jack DE, Ince W, Goecke J. A perspective on school social workers' roles in preventing and responding to school violence. School Social Work Journal Vol 2003; 27(2):32-56	Topic Criterion
77	Walker H, Stiller B, Severson HH, Feil EG, Golly A. First step to success: Intervening at the point of school entry to prevent antisocial behaviour patterns.	Quality Criterion

	Psychology in the Schools 1998; 35:259-269	
78	Watson M, Battistich V, Solomon D. Enhancing Students' Social and Ethical Development in Schools: An intervention program and its effects. International Journal of Educational Research 1997; 27:571-586	Not RCT
79	Weinstein CS. The classroom as a social context for learning. Annual Review of Psychology Vol 1991; 42:493-525	Topic Criterion
80	Wells J, Barlow J, Stewart-Brown S. A systematic review of universal approaches to mental health promotion in schools. Health Education 103. 2003	Targeting Criterion
81	Wentzel KR. Social Competence at School: Relation between Social Responsibility and Academic Achievement. Review of Educational Research 1991; 61(1):1-24	Topic Criterion
82	Wilson SJ, Lipsey MW, Derzon JH. The effects of school-based intervention programs on aggressive behaviour: A meta-analysis. Journal of Consulting & Clinical Psychology 2003; 71(1):136-149	Not RCT

## C Reviews

Chen HF & Cohn ES 2003; 23:4 61-78. Social Participation for Children with Developmental Co-ordination Disorder: Conceptual, Evaluation and Intervention Considerations

Evans J, et al 2003. Support for pupils with emotional and behavioural difficulties (EBD) in mainstream primary school classrooms: A systematic review of the effectiveness of interventions.

Fristad MA, et al 2003; 53:11 1000-1008. Family Psycho education: An Adjunctive Intervention for Children with Bipolar Disorder.

Goldstein H, 2002; 32:5 373-396. Communication Intervention for Children with Autism: A Review of Treatment Efficacy.

Green J, Howes F, Waters E, Maher E, Oberklaid F. Promoting the Social and emotional health of primary school-aged children: reviewing the evidence base for school-based interventions. International journal of mental health promotion 7

Harden A, et al 2003. Supporting pupils with emotional and behavioural difficulties (EBD) in mainstream primary schools: A systematic review of recent research on strategy effectiveness (1999 to 2002)

Kragg G, et al 2006; 44, 449-472. School Programs targeting stress management in children and adolescents: A meta-analysis.

Mytton J, et al 2006. School-based secondary prevention programmes for preventing violence.

Taylor TK, Eddy JM, Biglan A 1999; 2:3 169-182. Interpersonal skills training to reduce aggressive and delinquent behaviour: limited evidence and the need for an evidence-based system of care.

Vincent J, et al 1996; 11:2 101-117. Discussion: Using peers to increase behaviours of isolated children in school settings: An analysis of generalization effects.

Webber J, et al 1993. Research on Self-Monitoring as a Behaviour Management Technique in Special Education Classrooms: A Descriptive Review.

Due to time restrictions we were unable to include the following review:

Tennant, et al 2007. Preventing Mental Disorders in School Age Children. Warwick Medical School.

## D Other references in the text

Angold A (1989) 'Structured assessments of psychopathology in children and adolescents', 'in Thompson C (ed.) *The Instruments of Psychiatric Research*. New York: John Wiley and Sons Ltd.

Barrett PM, Dadds MR & Holland DE (1994) *The Coping Koala: Prevention Manual*. Unpublished manuscript. The University of Queensland; Queensland, Australia.

Campbell M, Fitzpatrick R, Haines A, Kinmonth A L, Sandercock P, Spiegelhalter D and Tyrer P (2000) Framework for design and evaluation of complex interventions to improve health, *BMJ*, 321; 694-696.

Collishaw S, Maughan B, Goodman R et al. (2004) A Time trends in adolescent mental health. *Journal of Child Psychology and Psychiatry* 45 8: 1350–1360.

Costello E (1989) Developments in child psychiatric epidemiology. *American Academy of child and Adolescent Psychiatry*, Special issue: 836-841.

Graham H, Power C (2003) *Childhood disadvantage and adult health: a lifecourse framework*. London: Health Development Agency.

Hodges K (1993) Structured interviews for assessing children. *Journal of Child Psychology* 34: 49-68

Kendall PC (1990) *The Coping Cat Workbook*. Ardmore, PA: Workbook publishing.

Kuh D, Power C, Blane D et al. (1997) Social pathways between childhood and adult health. In: Kuh D, Ben-Shlomo Y, (editors) *A life course approach to chronic disease epidemiology*. Oxford: Oxford Medical Publications.

Lochman JE, Burch PR, Curry JF, Lampron LB. (1984) Treatment and generalization effects of cognitive-behavioural and goal-setting interventions with aggressive boys. *Journal of Consulting and Clinical Psychology*; 52:915-916.

Lochman JE, Lampron LB, Burch PR and Curry JF. (1985) Client characteristics associated with behaviour change for treated and untreated boys. *Journal of Abnormal Child Psychology*; 13: 527-538.

Lochman JE and Curry JF (1986) Effects of social problem-solving training and self-instruction training with aggressive boys. *Journal of Clinical Child Psychology*, 15: 159-164.

NHS Scotland (2006) *Monitoring Positive Mental Health*. NHS Scotland.

Office of National Statistics (2004) *The Health of Children and Young People*. London: Office of National Statistics.

Reid JB and Eddy MJ (1997) 'The prevention of antisocial behaviour: some considerations in the search for effective interventions', in Staff D, Breiling J and Maser J D (eds.) *Handbook of Antisocial Behaviour*. New York: John Wiley.

Offord D, Boyle MH, Racine YA, Fleming JE, Cadman DT *et al* (1992) Outcome, prognosis and risk in a longitudinal follow up study. *Journal of the American Academy of Child and Adolescent Psychiatry*; 31:916-923.

## Appendix A – Medline search strategy

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### Medline search strategy

- 1 aggression/
- 2 anger/
- 3 Antisocial Personality Disorder/
- 4 anxiety/
- 5 conduct disorder/
- 6 crime/
- 7 depression/
- 8 juvenile delinquency/
- 9 mental disorders/
- 10 social alienation/
- 11 suicide/
- 12 violence/
- 13 exp Child Abuse/
- 14 aggressive\$.ti,ab.
- 15 alienation.ti,ab.
- 16 anti-social behaviour.ti,ab.
- 17 anti-social behaviour.ti,ab.
- 18 behaviour disorder\$.ti,ab.
- 19 behaviour disorder\$.ti,ab.
- 20 behaviour problem\$.ti,ab.
- 21 behaviour problem\$.ti,ab.
- 22 bullying.ti,ab.
- 23 conflict.ti,ab.
- 24 delinquency.ti,ab.
- 25 dysfunctional famil\$.ti,ab.
- 26 educational delay.ti,ab.
- 27 (impulsiveness or impulsivity).ti,ab.
- 28 isolation.ti,ab.
- 29 mental health problems.ti,ab.
- 30 parental absence.ti,ab.
- 31 parental permissiveness.ti,ab.
- 32 ((peer adj influence) or (peer adj pressure)).ti,ab.
- 33 poor mental health.ti,ab.

- 34 poor parenting.ti,ab.
- 35 psychological problems.ti,ab.
- 36 exclusion.ti,ab.
- 37 truancy.ti,ab.
- 38 achievement/
- 39 assertiveness/
- 40 decision making/
- 41 happiness/
- 42 health education/
- 43 health promotion/
- 44 parent-child relations/
- 45 personal autonomy/
- 46 problem solving/
- 47 self concept/
- 48 self efficacy/
- 49 social adjustment/
- 50 social behaviour/
- 51 anti-bullying.ti,ab.
- 52 (academic success or achievement).ti,ab.
- 53 assertiveness.ti,ab.
- 54 attentiveness.ti,ab.
- 55 autonomy.ti,ab.
- 56 communication skills.ti,ab.
- 57 conflict resolution.ti,ab.
- 58 (coping adj (behaviour\$ or behaviour\$ or skill or skills or mechanism\$ or ability or abilities)).ti,ab.
- 59 discipline.ti,ab.
- 60 (emotional adj (adjustment or skills or learning or competence)).ti,ab.
- 61 empowerment.ti,ab.
- 62 happiness.ti,ab.
- 63 (health adj promoting).ti,ab.
- 64 good relation\$.ti,ab.
- 65 mental health.ti,ab.
- 66 parenting program\$.ti,ab.
- 67 parenting skill\$.ti,ab.
- 68 problem solving.ti,ab.
- 69 safe environment.ti,ab.
- 70 (self-confidence or self-determination or self-esteem or self-identity).ti,ab.



71 (social adj (adjustment or behaviour or behaviour or skills or integration or learning)).ti,ab.  
 72 ((well adj being) or wellbeing).ti,ab.  
 73 resilience.ti,ab.  
 74 (reduc\$ stress or minimi\$ stress).ti,ab.  
 75 involvement program\$.ti,ab.  
 76 involvement strat\$.ti,ab.  
 77 ((promot\$ or increas\$) adj safety).ti,ab.  
 78 or/1-77  
 79 schools/  
 80 (pupil or pupils or schoolchildren).ti,ab.  
 81 ((primary adj school) or (primary adj schools)).ti,ab.  
 82 ((elementary adj school) or (elementary adj schools)).ti,ab.  
 83 classroom\$.ti,ab.  
 84 ((junior adj school) or (junior adj schools)).ti,ab.  
 85 or/79-84  
 86 78 and 85  
 87 review.ab. or review.pt.  
 88 meta-analysis.ti,ab,pt.  
 89 (letter or editorial or comment).pt.  
 90 (87 or 88) not 89  
 91 86 and 90  
 92 animals/ not (humans/ and animals/)  
 93 91 not 92  
 94 limit 93 to (english language and yr="1990 - 2007")  
 95 clinical trial.pt.  
 96 (randomized or randomised).ti,ab.  
 97 placebo.ti,ab.  
 98 randomly.ti,ab.  
 99 trial.ti,ab.  
 100 or/95-99  
 101 86 and 100  
 102 animals/ not (humans/ and animals/)  
 103 101 not 102  
 104 limit 103 to (english language and yr="1990 - 2007")  
 105 86 not (91 or 101)  
 106 animals/ not (humans/ and animals/)  
 107 105 not 106

108 limit 107 to (english language and yr="1990 - 2007")

109 from 94 keep 1-372

110 from 104 keep 1-709

111 from 108 keep 1-3852

## Appendix B – Screening tool for literature search phase

Screening tool for studies of interventions promoting the mental wellbeing of children				
Author & date				
Checked by				
	Selection criteria	Yes	No	Not clear
1	Is the article concerned with evaluation of the effectiveness of approaches/interventions designed to promote the mental wellbeing of children in primary school (education settings)			
2	Are the intended outcomes of the approaches /interventions clearly specified covering: a) Knowledge, skills of children b) Behaviours (eg bullying) and mental health conditions; and indicators of wellbeing c) Changes in parents, teachers, school support staff or other groups d) School systems & environment (note: scope definition of mental wellbeing <sup>1</sup> )			
3	Is the article based on review-level evaluative research that includes a minimum of: a) named database searched b) dates other which it was searched c) search term used			
	Is the article based on trial evaluation using a) randomised control design b) non-randomised control design			
	Are the approaches/interventions targeted at individual children who are 'at risk' or who have a mental health condition or problem (note: this can include children in transition to primary education, or in transition to secondary education)			
	Are the approaches /interventions addressing the whole school population and covering aspects of the school systems and environment (note: includes universally offered class-room interventions)			

<sup>1</sup> Mental wellbeing outcomes:

- emotional wellbeing (including happiness and confidence, and the opposite of depression)
- psychological wellbeing (including autonomy, problem solving, resilience, attentiveness/involvement)
- social wellbeing (good relationships with others, and the opposite of conduct disorder, delinquency, interpersonal violence and bullying).

	Are the article/s concerned with the cost effectiveness of the approaches/interventions			
4	Are the approaches interventions Focused on children preschool, or secondary school age Set in developing countries In language other than English Focused on pharmacological interventions			
	To be included the article should meet: 1 and 2, any element of 3. It is excluded if any of 4 is met.			
5	Is the article relevant to the development the guidance: specify			

## Appendix C – Inclusion/exclusion criteria

INCLUDED REPORTS MUST BE:	
1. Primary studies reporting empirical research (primary research criterion)	
2. Studies that have been peer reviewed (i.e. appear in an edited journal) (peer review criterion)	
3. Studies reported post 1990 (justify)	
4. Studies written in English (language criterion)	
5. Studies undertaken in developed countries (as defined etc) (population criterion) Country:	
6. Studies focusing on primary age children (aged 4-11 years) (age criterion)	
7. Studies taking a <u>targeted</u> approach (on a group at risk) or an <u>indicated</u> approach (on a group already identified as having problems) (targeting criterion)	
8. Studies where example is randomised a) by school b) by class c) by individual	
9. Studies using a control group (define??) a) no treatment or usual care-describe b) comparison treatment c) universal treatment d) no treatment or usual care-describe e) comparison treatment f) universal treatment	
10. Studies excluding pharmacological interventions	
11. Studies including an intervention focused on behaviour that are intended to produce outcomes related to improvements in mental wellbeing (see existing specific NICE definition) (topic criterion)	
12. Studies describing interventions of longer than one month (justify) (duration criterion)	
13. Studies describing interventions delivered to children by a teacher or another specialist: (setting criterion) (Exclude if ONLY c, d or g) h) in classroom within school hours/normal curriculum i) in classroom outside school hours/extra to curriculum j) in clinic setting k) in child's home l) in a different school to their own m) in a separate room to their classroom n) outside school premises	
14. Studies with a level of school involvement (Exclude if a) a) school not involved in intervention b) school carries out entire intervention c) combination of teacher and specialist delivery d) specialists carry out entire intervention	
15. Study describes an intervention that is delivered to: a) targeted children only b) indicated children only c) the whole class d) targeted children and their parents e) indicated children and their parents f) the whole class and their parents g) the whole class and parents of targeted/indicated children	
EXCLUDED BY CATEGORISATION SIFT TOOL	YES NO

## Appendix D - Quality checklist

AUTHOR: PROGRAMME NAME: TITLE:			
CRITERIA	LEVEL OF EVIDENCE		
	1++	1+	1-
<b>Randomisation</b> Yes/No Number/name of control groups  Similarities/differences between intervention and control groups at start of trial  Comparability of intervention/control sites			
<b>Attrition/Dropout rates</b> (include different groups)			
<b>Valid outcome measures</b>			
<b>OVERALL SCORE</b>			

### Definition of terms for 1++ rating:

Randomisation – as long as paper states that sample is randomised.

Attention control group plus no intervention control group.

Similarities/differences between intervention and control groups at start of trial stated.

Comparability of intervention/control sites stated.

Attrition/Dropout rate – >30%

Valid outcome measures – evidence that measures have been trialled elsewhere

### Definition of terms for 1+ rating:

Randomisation – as long as paper states that sample is randomised.

Only 1 no-treatment control group.

Attrition/Dropout rate - >50%

Valid outcome measures – evidence that measures have been trialled elsewhere

### Definition of terms for 1- rating:

Randomisation – as long as paper states that sample is randomised.

Attrition/Dropout rate - <50%

No intervention control group only.

Similarities/differences between intervention and control groups at start of trial NOT stated.

Comparability of intervention/control sites NOT stated.

Valid outcome measures – evidence that measures have been trialled elsewhere

NOTE:

Unit and level of randomisation on data extraction form.

Number and type of control groups looks at attention effects.

Blinding often not applicable so not included as a quality criterion – comment on data extraction form.

ITT not always applicable - comment on data extraction form if mentioned in paper.

Power calculation rarely reported therefore commented on data extraction form as follows:

- Whether power calculation was performed
- Reference to confounding

## Appendix E – Typology of disorders and interventions

Typology of disorders and interventions			Example interventions
Internalising behaviours	Anxiety disorders, e.g. separation anxiety, social phobias		Queensland Early Intervention and Anxiety Project (Coping Koala)
	Mood disorders, e.g. depression, PTSD		Penn Prevention Programme
Externalising behaviours	Attention deficit hyperactivity disorder (ADHD)	(Focused solely on young people)  or Multicomponent programmes	BrainPower
	Oppositional defiant disorder (ODD)		Fast Track, Anger Coping Programme, etc
	Conduct disorder (CD)		



## Appendix F – Results from cross-checking reviews

Eleven reviews were used for background information and cross checked for references (See Reference List C).

PAPERS THAT OCCURRED IN REVIEWS MORE THAN ONCE  
All papers were either duplicates or excluded through the sifting tool

References	Appears Twice	Appears Three Times
Fowler SA, Dougherty BS, Kirby KC, Kohler FW (1986) Role-reversals: an analysis of therapeutic effects achieved with disruptive boys during their appointments as peer monitors. Journal of Applied Behaviour Analysis 19: 436-444	√	
Lochman JE, Coie JD, Underwood MK, Terry R (1993) Effectiveness of a social relations intervention program for aggressive and non-aggressive rejected children. Journal of Consulting and Clinical Psychology 1993 61: 1053-1058		√
Omizo MM, Herschberger JM, Omizo SA (1988) Teaching children to cope with anger. Elementary School Guidance and Counselling 22: 241-246	√	
CPPRG 1999. Initial impact of the Fast Track prevention trial for conduct problems: I. The high risk sample. Journal of Consulting and Clinical Psychology 1999 67(5) 631-647	√	
Hudley C, Graham S. An attributional intervention to reduce peer directed aggression among African-American boys. Child Development 1993 64(1) 124-138	√	
Pepler D, King G, Craig W, Byrd B, Bream L. The development and evaluation of a multisystem social skills group training program for aggressive children. Child and Youth Care Forum 1995 24(5) 297-313	√	
Prinz RJ, Blechman EA, Dumas JE. An evaluation of peer coping skills training for childhood aggression. Journal of Clinical Child Psychology 1994 23(2) 193-203	√	

Walker HM, Severson HH, Feil EG, Stiller B, Golly A. First Step to Success: Intervening at the point of school entry to prevent antisocial behaviour patterns. <i>Psychology in the Schools</i> 1998 35(3) 259-269	√	
Shafer MS, Egel AL and Neef NA, 1984. Training mildly handicapped peers to facilitate changes in the social interaction skills of autistic children. <i>Journal of Applied Behaviour Analysis</i> , 17. 461-476	√	
Clarke GN, Hawkins W, Murphy M, Sheeber LB, Lewinsohn PM, Seeley JR, 1995. Targeted prevention of unipolar depressive disorder in an anti risk sample of high school adolescents: a randomized trial of a group cognitive intervention. <i>J Am Acad Child Adolesc Psychiatry</i> 34: 312-321	√	
Klingman A, Hochdorf Z, 1993. Coping with distress and self harm: The impact of a primary prevention program among adolescents. <i>Journal of Adolescence</i> , 16. 121-140	√	
Caplan M, Weissberg RP, Grober JS, Sivo PJ, Grady K, Jacoby C, 1992. Social competence promotion with inner-city and suburban young adolescents: Effects on social adjustment and alcohol use. <i>Journal of Consulting and Clinical Psychology</i> , 60. 56-63	√  √	
Elias MJ, Gara M, Ubriaco M, Rothbaum PA, Clabby JF, Schuyler T, 1986. Impact of a preventive social problem solving intervention on children's coping with middle-school stressors. <i>American Journal of Community Psychology</i> 14, 259-275	√	

## Appendix G – Data extraction lists

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First author Date Title	Study Design	Study population	Description of intervention	Length of study and follow-up	Main Outcomes	External validity/Generalisability to UK	Comments
Atkins MS et al 2006 School-based mental health services for children living in high poverty urban communities	<p>Comparative cohort study, nested model.</p> <p>Randomised by school class.</p> <p>Is the Positive Attitudes toward Learning in School (PALS) model effective in promoting improved classroom and home behaviour for children referred for disruptive behaviour disorder for children living in high poverty communities?</p> <p>Quality: 1- Problems due to suspension of research because of a federal IRB investigation at the university-led to high drop out rate</p> <p>Indicated intervention for children referred with Disruptive Behaviour</p>	<p>Country: USA, urban mid-west</p> <p>Setting: in classroom within school hours, in the clinic and in the child's home</p> <p>Participants: Age – 4<sup>th</sup> and 5<sup>th</sup> graders SES – high poverty communities Ethnicity – 97% from minority groups</p> <p>Cohort 1/ Intervention group: Classes n=9 Intervention families n=75</p> <p>Cohort 1/Control group: Classes n=8 Non-Intervention families n=55</p> <p>Due to suspension of study Cohort 2 comprised of existing participants (n=24) and additional</p>	<p>Positive Attitudes toward Learning in School (PALS)</p> <p>Targets disruptive behaviour.</p> <p>Class-wide behaviour management strategies delivered by PALS staff.</p> <p>Class-wide methods to be used by the teacher e.g. increased praise and reward and reduced punishment and criticism</p> <p>Targeted reward programmes for 'high-need students' in addition to class-wide interventions</p> <p>Comparison group (not control) with referral to mental health clinic</p>	<p>3 years – disrupted by temporary closure of research department at university at the end of the 1<sup>st</sup> year of the study.</p> <p>Retention of clinic services/PALS recorded at beginning 3, 9 and 12 months.</p> <p>Child measures were intended to be collected at the beginning and end of each school year, the first one being a pre-test.</p> <p>Data collection was</p>	<p>For parents increased access to school and interaction with school were encouraged and specific parenting strategies taught to parents of at-risk children. Results indicated significant service user engagement and retention for PALS versus families referred to clinic with over 80% of PALS families retained in services for 12 months.</p>	<p>A</p> <p>US system involves Medicaid funding and is not directly transferable</p>	<p>Teachers aware if their class received the intervention.</p> <p>Parents aware that their child was in the study (as opposed to controls who went to clinic as normal).</p> <p>Not clear if teachers were aware which children were in study.</p> <p>Not clear if children themselves are aware if they are in the study.</p> <p>Power insufficient due to disruption.</p> <p>Not analysed as a comparison of intervention and control groups in terms of change but compares cohorts.</p> <p>Drop out/attrition: Cohort 1 Intervention families</p>

	Disorder	<p>participants (n=28) Ethnicity – 100% African-American</p> <p>Cohort 2 / Intervention group: Classes n=8 Intervention children (not families as specified for 1<sup>st</sup> cohort) n=37 Gender - 16 girls, 21 boys</p> <p>Cohort 2/Control group: Classes n=5 Control children (not families as specified for 1<sup>st</sup> cohort) n=15 Gender – 7 girls, 8 boys</p>		interrupted then resumed 1 year later.			<p>20%</p> <p>Cohort 2 Intervention families n=17% Intervention teachers 0% Control teachers 50% Control families (not individual children) n=64%</p> <p>N.B. The interchangeable use of families and children is confusing i.e. some families may have more than one child in the study.</p>
<p>August GL et al 2001</p> <p>An integrated components prevention for aggressive elementary school children: the early risers program</p>	<p>Randomised controlled trial.</p> <p>Randomised by school.</p> <p>An evaluation of the initial impact of the Early Risers programme</p> <p>Quality: 1++</p>	<p>Country: USA, mid-West</p> <p>Setting: in classroom within and without school hours and in a different school</p> <p>Participants: Age –1<sup>st</sup> and 2nd graders Gender – 69% boys, 31% girls</p>	<p>Early Risers Program (incorporates Dinosaur School, Webster-Stratton et al 1996 as part of CORE components)</p> <p>Targeting aggressive behaviour</p> <p>CORE components- a) Annual 6-week summer school, 4 days per week, for high-risk children over 3</p>	<p>3 years</p> <p>Baseline assessments at end of kindergarten</p> <p>T1 End of Grade 1</p> <p>T2 End of Grade</p>	<p>Following 2 years of intervention, program children showed significant improvement relative to controls in school behaviours.</p> <p>Parents with high program attendance rates showed improvement in discipline methods.</p>	<p>A</p> <p>Different education systems.</p>	<p>All participants followed up regardless of level of participation.</p> <p>Power not specified.</p> <p>Blinding not specified.</p> <p>ITT not specified-mentioned in other papers on this study.</p>

	Targeted at children at high risk of developing aggressive/disruptive behaviour	SES: low to low-middle class Ethnicity – primarily Caucasian  Intervention group n=124  Control group n=121  Normative group from following year group not involved in intervention n=92	years old. Equal number of low-risk peer mentors. b) School year teacher consultation with family advocates. Individual children mentored by family advocates. c) Bi-weekly family programme where parents and children, from October to May, were invited to skills raising sessions.  FLEX components – Tailored support to child and family based on Needs Assessment.	2			
August GJ et al 2002 The Early Risers Longitudinal Prevention Trial: examination of a 3-year outcomes in aggressive children with ITT and as-intended analyses	Randomised controlled trial.  Randomised by school.  An evaluation of the 3-year outcomes of the Early Risers programme  Quality: 1++  Targeted at children at high risk of developing aggressive/disruptive	Country: USA, mid-West  Setting: in classroom within and without school hours and in a different school  Participants: Age –1 <sup>st</sup> and 2nd graders Gender – 69% boys, 31% girls SES: low to low-middle class Ethnicity – primarily Caucasian	Early Risers Program (incorporates Dinosaur School, Webster-Stratton et al 1996 as part of CORE components)  Targeting aggressive behaviour  CORE components- a) Annual 6-week summer school, 4 days per week, for high-risk children over 3 years old. Equal number of low-risk peer mentors. b) School year teacher consultation with family	3 years  Baseline assessments at end of kindergarten  T1 End of Grade 1  T2 End of Grade 2  T3 End of Grade	Program participants showed greater gains in social skills and parent discipline, compare with controls. Recommended level of family support contact time was associated with gains in concentration problems, and social skills, with parents of severely aggressive children showing greater reductions in parent distress.	A  Different education systems.	All participants followed up regardless of level of participation.  Power not specified.  Blinding not specified.  Rural study sample less aggressive than some urban samples.  Variability in dosage according to

	behaviour	<p>Intervention group n=124</p> <p>Control group n=121</p> <p>Normative group from following year group not involved in intervention n=92</p>	<p>advocates. Individual children mentored by family advocates.</p> <p>c) Bi-weekly family programme where parents and children, from October to May, were invited to skills raising sessions.</p> <p>FLEX components – Tailored support to child and family based on Needs Assessment.</p>	3			participation.
<p>August GJ et al 2003a</p> <p>Parceling component effects of a multifaceted prevention program for disruptive elementary school children</p>	<p>Randomised controlled trial.</p> <p>Randomised by school.</p> <p>Comparison of two fixed-prescription elements of the Early Risers programme, summer school and family programme</p> <p>Quality: 1++</p> <p>Targeted at children at high risk of developing aggressive/disruptive behaviour</p>	<p>Country: USA, mid-West</p> <p>Setting: in classroom within and without school hours and in a different school</p> <p>Participants: Age – 1<sup>st</sup> and 2nd graders Gender – 69% boys, 31% girls SES: low to low-middle class Ethnicity – primarily Caucasian</p> <p>Intervention group n=124</p>	<p>Early Risers Program (incorporates Dinosaur School, Webster-Stratton et al 1996 as part of CORE components)</p> <p>Targeting aggressive behaviour</p> <p>CORE components- a) Annual 6-week summer school, 4 days per week, for high-risk children over 3 years old. Equal number of low-risk peer mentors. b) School year teacher consultation with family advocates. c) Bi-weekly family</p>	<p>3 years</p> <p>Baseline assessments at end of kindergarten</p> <p>T1 End of Grade 1</p> <p>T2 End of Grade 2</p> <p>T3 End of Grade 3</p>	<p>Results indicated that program children, compared with controls, obtained higher reputation scores on leadership and social etiquette and close friends with lower aggression. Self-reported quality of friendship also differed between groups, with program children reporting more companionship and recreation, program girls reporting more validation and caring, and severely aggressive program children reporting less aggression towards others compared with controls.</p>	<p>A</p> <p>Different education systems.</p>	<p>All participants followed up regardless of level of participation.</p> <p>Power not specified.</p> <p>Blinding not specified.</p> <p>Rural study sample less aggressive than some urban samples.</p> <p>Variability in dosage according to participation.</p> <p>Multifaceted intervention with only</p>

		Control group n=121  Normative group from following year group not involved in intervention n=92	programme where parents and children, from October to May, were invited to skills raising sessions.  FLEX components – Tailored support to child and family based on Needs Assessment.				one treatment group.
August GJ et al 2003b Four years of the Early Risers early-age – targeted preventive intervention: effects on aggressive children's peer relations	Randomised controlled trial.  Randomised by school.  4 year follow-up investigating the effects of the Early Risers programme on peer relationships  Quality: 1++  Targeted at children at high risk of developing aggressive/disruptive behaviour	Country: USA, mid-West  Setting: in classroom within and without school hours and in a different school  Participants: Age –1 <sup>st</sup> and 2nd graders Gender – 69% boys, 31% girls SES: low to low-middle class Ethnicity – primarily Caucasian  Total year group n=1489  Intervention group n=75  Control group n=50	Early Risers Program (incorporates Dinosaur School, Webster-Stratton et al 1996 as part of CORE components)  Targeting aggressive behaviour  CORE components- a) Annual 6-week summer school, 4 days per week, for high-risk children over 3 years old. Equal number of low-risk peer mentors. b) School year teacher consultation with family advocates. Individual children mentored by family advocates. c) Bi-weekly family programme where parents and children, from October to May, were invited to skills raising sessions.	4 years  Baseline assessments at end of kindergarten  T1 End of Grade 1  T2 End of Grade 2  T3 End of Grade 3  T4 End of Grade 4	Higher attendance in the Summer program was associated with higher child social competence. Higher attendance in the Family program was associated with lower aggression scores for mild/moderately disruptive children.	A  Different education systems.	All participants followed up regardless of level of participation.  Power not specified.  Blinding not specified.  Rural study sample less aggressive than some urban samples.  Variability in dosage according to participation.  Multifaceted intervention with only one treatment group.  Higher attrition rate in fourth year of



		Normative group from following year group not involved in intervention n=92	FLEX components – Tailored support to child and family based on Needs Assessment.				study 39.5% for intervention group and 58.7% for control group.
Barkley RA et al 2000 Multi-method psycho-educational intervention for preschool children with disruptive behavior: preliminary results at post-treatment	<p>Randomised controlled trial. Longitudinal, cohort study.</p> <p>Randomised by individual and by gender. Explanation for 8 children where true randomisation was not possible.</p> <p>Is targeting children displaying early disruptive behaviour to improve their academic outcomes and antisocial conduct more cost-effective compared with targeting all children or all children of a given social class or minority group.</p> <p>Quality: 1++</p> <p>Targeted</p>	<p>Country: USA</p> <p>Setting: medical centre and two specialist classrooms in different local schools</p> <p>Participants: Age – kindergarten Gender – 66% boys, 44% girls SES – Ethnicity – not specified, non English speakers excluded. Sample n=158 Intervention groups: Parent training only n=39 Special treatment classroom only n=37 Both parent training and special classroom n=40</p> <p>Control group n=42</p>	<p>Targeted at children with high levels of disruptive behaviour.</p> <p>Parent training programme similar to Webster-Stratton.</p> <p>Parent training only – 10 weekly sessions followed by monthly booster sessions for 5 months and delivered by a specialist in the evenings at a medical centre.</p> <p>Special treatment classroom only – Full time schooling took place in these classrooms. The intervention plus an accelerated curriculum was delivered by supply teachers and teaching assistants. They were trained by a teaching specialist and a psychologist. The intervention consisted of multiple behavioural interventions and intense academic coaching. On children entering Grade 1 the teaching and psychology</p>	<p>5 year study</p> <p>This paper reports 1<sup>st</sup> year only</p> <p>T1 – Pretest</p> <p>T2 – Mid intervention (not presented)</p> <p>T3 – posttest</p>	<p>Results showed that parent training produced no significant treatment effects, probably owing, as the authors acknowledge, to poor attendance. Classroom treatment produced effects in multiple domains relating to aggression, behaviours and social skills (on basis of teacher and parent ratings and on observation data). However, the intervention made no effect on academic achievement skills or on ratings of home behaviour. Most treatment effects were therefore specific to the school environment.</p>	<p>A</p> <p>Different education systems.</p>	<p>Blinding of assessors and teachers where possible.</p> <p>Drop out/attrition: 0% children 31% parents in parent and child training group 35% parents in parent training only group</p> <p>Power – not specified.</p> <p>Setting influenced parental attendance, medical centres were less preferable than schools.</p> <p>Teachers completed rating scores i.e. assessed their own level of success with the children.</p>

	intervention		specialists provided consultations for the grade 1 teachers.  Both parent training and special classroom  Control group – no intervention				
Barrera M et al 2002 Early elementary school intervention to reduce conduct problems: a randomized trial with Hispanic and non-Hispanic children	Randomised controlled trial  Randomised by individual.  To determine if the Schools and Homes in Partnership (SHIP) program affected teacher, parent and observer measures of internalising and externalising problems.  Quality: 1++  Targeted intervention at children who had aggressiveness or reading difficulties.	Country: USA North west  Setting: in classrooms within and without school hours and in a separate room in school  Participants: Age – kindergarten-3 <sup>rd</sup> graders Gender – 55% boys, 45% girls SES – Ethnicity – 168 (59%) Hispanic, 116 (41%) European-American. Spanish first language for many Hispanics.  Sample n=284 families Intervention group n=141	Schools and Homes in Partnership (SHIP) Incredible Years (PT) Contingencies for Learning Academic and Social Skills (CLASS) (CT) Dina Dinosaur Social Skills Program (CT)  Targeted aggressive behaviour and reading difficulties.  Materials altered/translated where necessary.  Intervention group: Parent training Incredible Years programme plus Child training using a social behaviour intervention (CLASS and/or Dinosaur School) plus Supplemental reading instruction (if low scores)  Control group:	2 year intervention  1 year follow up  T1- Beginning of intervention T2- End of 1 <sup>st</sup> academic year T3 – End of intervention (end of 2 <sup>nd</sup> academic year) T4 – 1 year follow up	At a 1-year follow up treated children showed less teacher-rated internalising and less parent-rated coercive and antisocial behaviour than controls. The intervention was as successful in decreasing conduct problems for Hispanic children as it was for European American children.	B  No significant Hispanic minority in UK but may be applicable for non-native language speakers.  Education systems differ between US and UK.	Blinding – not appropriate for this study  Drop out/attrition: T2 - 0.8% T3 – 12.7% T4 – 13.7%  Power – not specified  No teacher training in this study, but uses Dinosaur School programme which has been reported with a teacher training element elsewhere.  Teachers involved in delivering CLASS programme.  Also it appears to be delivered at school,

		Control group n=143	<p>No intervention</p> <p>Incredible Years parent training involved weekly 2-hour sessions for 22-24 weeks delivered by therapists after hours at the school (?). It is a video based course on parenting and interpersonal skills.</p> <p>CLASS was a 30 day programme. Day 1-5 a specialist worked with intervention children, in class, rewarding and praising them for appropriate behaviour. Day 6-20 the teacher assumed control and the specialist reduced rewards. Day 21-30 the parents and teacher are expected to take up the praise and recognition of appropriate behaviours.</p> <p>Dinosaur School programme involves weekly 2-hour sessions for 18-19 weeks delivered by two therapists after hours at the school (?). It addresses social skills, conflict resolution, loneliness, negative attributions, empathy, communication, co-operation and compliance with parent and teacher</p>				out of hours, without clinic involvement.
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			requests.				
Bernstein GA et al 2005 School-based interventions for anxious children	Randomised controlled trial.  Randomised by school.  To compare the effectiveness of three interventions for anxious children: group cognitive behavioural therapy (CBT), CBT plus parent training and no treatment control.  Quality: 1++  Targeted intervention	Country: USA  Setting: in a classroom outside school hours  Participants: Age – 7-11 years Gender – 66% girls, 34% boys SES – 22-58 on Hollingshead Index, average 40.5 corresponding to middle class. Ethnicity – 97% White, 1.5% Hispanic/White, 1.5% Asian Sample n=61 Intervention groups: CBT n=17 CBT plus parent training n=20  Control group n=24	FRIENDS programme-based on Coping Koala (Australia)/Coping Cat (USA) programme  Targeted anxious behaviour  CBT group – 9 weekly, 60-minute sessions in groups of 8-10 children. Booster sessions at 1 and 3 months. Delivered by specialists.  CBT and parent training group – 9 weekly, 60-minute sessions delivered by specialists, concurrently with children's sessions.  Control group: normal care i.e. family could access services recommended for an anxious child. Intervention available to them after 6 months.	9 weeks  T1 – Pretest  T2 – posttest	Group CBT for children and group CBT for children plus parent training are significantly more effective than no-treatment control in decreasing children's anxiety symptoms and in facilitating remission in baseline anxiety diagnoses.	A  Different education systems.	Blinding of evaluators  Drop out/attrition: 11% and 18%  ITT all included.  Power – not specified.  Schools only involved in identifying the sample.
Bloomquist ML et al 1991 Effects of a school-based cognitive-behavioral intervention for ADHD children	Randomised controlled trial  Randomised by school  To assess the short-	Country: USA  Setting: in a separate classroom  Participants: Age – 8-9 years	Multicomponent CBT intervention  Targets ADHD  Intervention groups: Multicomponent –	10 week intervention 6 week follow up  T1 pretest	The results provide only minimal support for the efficacy of a multicomponent CBT intervention for ADHD children. There was a reduction in off task	A  Different education systems	Blinding of data collectors where possible.  Drop out/attrition: 0%

	<p>term efficacy of a school-based multicomponent CBT programme in reducing symptomatic behaviours and improving adjustment to ADHD.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>Gender – not stated SES – not stated Ethnicity – not stated Sample n=36 Intervention groups: Multicomponent n=11 Teacher only n=12</p> <p>Wait list control group n=13</p>	<p>Child/teacher/parent Children attended 2 one hour sessions per week in groups of 6-8 for 10 weeks and delivered by specialists. Teacher attended one 2 hour in-service and six 45-60 minute consultation sessions over 10 weeks delivered by specialist. Parents were offered seven 90 minute biweekly sessions in the evenings by a specialist.</p> <p>Teacher only - Training as above.</p> <p>Wait list control group.</p>	<p>T2 posttest T3 6 week follow up</p>	<p>behaviours in the intervention group compared to teacher only or wait list controls, but no significant effects on child self reports or teacher ratings of adjustment. There were no significant differences in measures at follow up.</p>		<p>Power – not specified.</p> <p>Parent response data left out due to low numbers.</p>
<p>Braswell, L et al 1997 School-based secondary prevention for children with disruptive behavior: initial outcomes</p>	<p>Randomised controlled trial</p> <p>Randomised by school district.</p> <p>Hypothesis: multicomponent competence enhancement intervention would yield reductions in disruptive behaviours and improvements in adaptive behaviours</p>	<p>Country: USA</p> <p>Setting: in a separate room to their classroom</p> <p>Participants: Age – grade 1 and 2 Gender – 4:1 boys:girls SES – Levels I-V in Hollingshead classification, primarily levels II-III i.e. middle class Ethnicity – less than</p>	<p>Minnesota Competence Enhancement Project</p> <p>Targets disruptive behaviour.</p> <p>Peer training component for children - 10 group sessions, 45-60 minute long in grade 1, delivered by psychologists.</p> <p>Parenting skills component – 9 group sessions, 2 hours long on weekday evenings and 1 6-hour Saturday session, over 5 months in</p>	<p>2 years</p> <p>T1 – Pretest</p> <p>T2- Beginning of grade 1</p> <p>T2 – End of grade 1 Posttest 1</p> <p>T3 – Beginning of Grade 2</p>	<p>Three test points were undertaken but assessments were not supportive of the efficacy of the MCEI over control condition. Children in both groups rated themselves as improved in terms of increased adaptive skills and decreased school problems, but teacher and parent ratings of externalising behaviour did not yield evidence of positive change. Maturation rather than</p>	<p>A</p> <p>Different education systems.</p>	<p>Blinding – not specified</p> <p>Drop out/attrition: 18.8% Low parental compliance</p> <p>Power – not specified.</p>

	<p>and social skills.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>5% African-American, Hispanic-American and Asian-American, 95% unstated presume white-American.</p> <p>Intervention group n=309</p> <p>Stratified random sample of non disruptive comparison group n=144</p> <p>Information/attention control n=not specified</p>	<p>grade 1, delivered by two of the authors.</p> <p>Teaching skills component – Two 2-hour in-service sessions and nine 45- minute sessions in grade 1, delivered by two of the authors.</p> <p>One 2-hour in-service session and five 45-minute in-building (?) sessions in grade 2, delivered by two of the authors.</p>	<p>Posttest 2</p> <p>T4 – End of Grade 2</p> <p>Posttest 3</p>	<p>treatment may explain the observed positive changes in child self-ratings.</p>		
<p>Conduct Problems Prevention Research Group 1999a</p> <p>Initial impact of the FAST TRACK prevention trial for conduct problems: 1 the high risk sample</p> <p>Part 2 of this paper – classroom effects, only refers to a universal intervention and so has been excluded from the targeted</p>	<p>Randomised controlled trial.</p> <p>Matched sets of schools from four culturally and geographically diverse sites. Randomised by set.</p> <p>An evaluation of the initial effectiveness of the FAST TRACK programme in altering key child and family risk factors for</p>	<p>Country: USA</p> <p>Setting: In classroom within and without school curriculum</p> <p>Participants: Age – 1<sup>st</sup> and 2<sup>nd</sup> graders (full study up to 10<sup>th</sup> grade) Gender – 69% boys, 31% girls SES Ethnicity – 51% African-American,</p>	<p>FAST TRACK (including PATHS)</p> <p>Targeting antisocial behaviour</p> <p>Universal intervention: PATHS programme in grade 1 delivered by teachers</p> <p>Targeted intervention from October to April of grade 1: 2 hour weekly enrichment including parent/child groups, academic tutoring and home visits delivered by</p>	<p>Reporting on first year of a longitudinal, long-term study.</p> <p>Pretest.</p> <p>T1 End of Grade 1</p>	<p>There were moderate positive effects on children's social and emotional skills, peer interactions and social status, and conduct problems in the intervention group, compared with controls. Parents of children in the intervention group reported less physical discipline and greater parenting satisfaction/ease of parenting and engaged in</p>	<p>B</p> <p>Nature of crime and consequences of poverty can vary so study requires suitable adaptation.</p> <p>Differences in education systems.</p>	<p>All participants retained in analyses.</p> <p>'Intent-to-intervene' through screening all children in study schools for disruptive behaviour and including all those where parents consented.</p> <p>States non biased observers recorded actual school performance, but not</p>

part of this review.	<p>antisocial behaviours among high risk children.</p> <p>Quality: 1++</p> <p>Targeted at children coming from neighbourhoods statistically high in poverty and crime who showed signs of disruptive behaviour at home and school.</p>	<p>47% European-American, 2% other children</p> <p>Number of schools n=54</p> <p>Number of high risk school children n=891</p> <p>Number of children in intervention group n=445</p> <p>Number of children in control group n=446</p> <p>Recruited in 3 successive cohorts.</p>	family coordinators.		more appropriate/consistent discipline, warmth/positive involvement, and involvement with the school.		<p>how bias was controlled.</p> <p>Control children not identified to teachers although programme children were inevitably identified.</p> <p>Power not specified.</p>
<p>Conduct Problems Prevention Research Group 2002</p> <p>Evaluation of the first 3 years of the FAST TRACK prevention trial with children at high risk for adolescent conduct problems</p>	<p>Randomised controlled trial.</p> <p>Matched sets of schools from four culturally and geographically diverse sites. Randomised by set.</p> <p>An evaluation of the effectiveness of the first 3 years of the FAST TRACK programme in altering key child and family risk factors for antisocial behaviours among high risk</p>	<p>Country: USA</p> <p>Setting: In classroom within and without school curriculum</p> <p>Participants: Age – 1<sup>st</sup> and 2<sup>nd</sup> graders (full study up to 10<sup>th</sup> grade) Gender – 69% boys, 31% girls SES Ethnicity – 51% African-American, 47% European-American, 2% other</p>	<p>FAST TRACK (including PATHS)</p> <p>Targeting antisocial behaviour</p> <p>Universal intervention: PATHS programme in grade 1 delivered by teachers</p> <p>Targeted intervention from October to April of grade 1: 2 hour weekly enrichment including parent/child groups, academic tutoring and home visits delivered by family coordinators.</p>	<p>Reporting on first three years of a longitudinal, long-term study.</p> <p>Pretest.</p> <p>T1 End of Grade 1</p> <p>T2 End of Grade 2</p> <p>T3 End of Grade</p>	<p>At 3 year follow-up, 37% of the intervention group was deemed to be free of serious conduct-problem dysfunction, in contrast to 27% of the control group. Teacher ratings of conduct problems and official records of use of special education resources gave modest effect-size evidence that the intervention was preventing conduct problem behaviour at school.</p>	<p>B</p> <p>Third year results rely largely on self-reporting.</p> <p>Differences in education systems.</p> <p>Nature of crime and consequences of poverty can vary so study requires suitable adaptation.</p>	<p>All participants retained in analyses.</p> <p>Movement of pupils made follow-up more difficult with resultant a) higher attrition rates and b) removal of classroom and school dependencies from analysis.</p> <p>Drop out/attrition rate between 1.2% and 22.2% depending on group.</p> <p>Interviewers were kept blind to family</p>

	<p>children.</p> <p>Quality: 1++</p> <p>Targeted at children coming from neighbourhoods statistically high in poverty and crime who showed signs of disruptive behaviour at home and school.</p>	<p>Number of schools n=54</p> <p>Number of high risk school children n=891</p> <p>Number of children in intervention group n=445</p> <p>Number of children in control group n=446</p> <p>Recruited in 3 successive cohorts</p>		3			<p>allocation.</p> <p>Teachers and parents not able to be blinded.</p> <p>Power not specified although treatment effect calculation is included.</p>
<p>Conduct Problems Prevention Research Group 2004</p> <p>The effects of the FAST TRACK program on serious problem outcomes at the end of elementary school</p>	<p>Randomised controlled trial.</p> <p>Matched sets of schools from four culturally and geographically diverse sites. Randomised by set.</p> <p>Does FAST TRACK reduce cases of serious problems that can occur during the 4<sup>th</sup> and 5<sup>th</sup> Grade years?</p> <p>Quality: 1++</p> <p>Targeted at children coming from neighbourhoods</p>	<p>Country: Country: USA</p> <p>Setting: In classroom within and without school curriculum</p> <p>Participants: Age – 1<sup>st</sup> and 2<sup>nd</sup> graders (full study up to 10<sup>th</sup> grade), reports on when they are 4<sup>th</sup> and 5<sup>th</sup> graders, part way through the study</p> <p>Gender – 69% boys, 31% girls</p> <p>SES</p> <p>Ethnicity – 51% African-American, 47% European-</p>	<p>FAST TRACK (including PATHS)</p> <p>Targeting antisocial behaviour</p> <p>Universal intervention: PATHS programme in grade 1 delivered by teachers</p> <p>Targeted intervention from October to April of grade 1-10 (up to grade 4 and 5 so far): 2 hour weekly (evening or week-end) enrichment including parent/child groups, academic tutoring and home visits delivered by family coordinators. Intervention addresses social cognition and social competence problems, peer</p>	<p>Reporting on first 5 years of a longitudinal, long-term study.</p> <p>Pretest.</p> <p>T1 End of Grade 1</p> <p>T2 End of Grade 2</p> <p>T3 End of Grade 3</p> <p>T4 End of Grade</p>	<p>The program did have a significant but modest impact on children's rates of social competence and social cognition problems, problems with involvement with deviant peers, and conduct problems in the home and community, compared with control children.</p>	<p>B</p> <p>Differences in education systems.</p> <p>Nature of crime and consequences of poverty can vary so study requires suitable adaptation.</p>	<p>All participants retained in analyses.</p> <p>Interviewers were kept blind to family allocation.</p> <p>Teachers and parents not able to be blinded.</p> <p>Power not specified although explanation of multiple imputation used for missing data.</p>



	statistically high in poverty and crime who showed signs of disruptive behaviour at home and school.	<p>American, 2% other</p> <p>Number of schools n=54</p> <p>Number of high risk school children n=891</p> <p>Number of children in intervention group n=445</p> <p>Number of children in control group n=446</p> <p>Normative sample n=387 from registers of control schools.</p> <p>Recruited in 3 successive cohorts.</p>	deviance, home and community problems and school context academic and behaviour problems.	<p>4</p> <p>T5</p> <p>End of Grade 5</p>			
<p>Dadds MR et al 1997</p> <p>Prevention and early intervention for anxiety disorders: a controlled trial</p>	<p>Randomised controlled trial. Longitudinal.</p> <p>Randomised by school.</p> <p>Report on Queensland Early Intervention and Prevention of Anxiety Project (QEIPAP) at 6 month follow up following end of intervention to reduce anxiety.</p>	<p>Country: Australia</p> <p>Setting: in a separate room to the classroom</p> <p>Participants: Age – 7-14 year olds Gender – 41% boys, 59% girls SES – diverse Ethnicity – primarily White, between 5 and 27% ethnic minorities across catchment areas.</p>	<p>Queensland Early Intervention and Prevention of Anxiety Project (QEIPAP) Coping Koala /Coping Cat Program</p> <p>Targets anxious behaviour</p> <p>Intervention group – Coping Koala Program to address anxiety, delivered by specialists in group sessions over 10 weeks. In weeks 3, 6 and 9 parents were taught skills to manage child's anxiety. Written booster package by post 14 months</p>	<p>9 months and ongoing</p> <p>T1 – pretest</p> <p>T2 – Posttest</p> <p>T3 – 6 month follow up</p>	<p>Curiously, immediately post test, there were no significant differences between intervention and control groups, but, as a group, children who received the intervention emerged with lower rates of anxiety at 6 months follow up compared with those who were identified but monitored only. Significantly, of those children who at pre-intervention had shown early signs or features of a problem but did not have a</p>	<p>A</p> <p>Different education systems</p>	<p>Blinding of follow up assessors.</p> <p>Drop out/attrition: 2.7%</p> <p>Power – not specified.</p> <p>Note age of sample falls in part outside of criteria.</p>

	Quality: 1++  Targeted intervention	Sample n=128 Intervention group n=61 Monitoring group n=67	post intervention.  Monitoring group – No treatment unless requested by parents.		full-blown disorder, 54% in the monitoring group progressed to having a diagnosable disorder, compared to only 16% in the intervention group.		
Dadds MR et al 1999 Early intervention and prevention of anxiety disorders in children: results at 2-year follow-up	Randomised controlled trial. Longitudinal.  Randomised by school.  Report on Queensland Early Intervention and Prevention of Anxiety Project (QEIPAP) at 12 and 24 month follow up following end of intervention to reduce anxiety.  Quality: Lack of criteria, details given in Dadds MR et al 1997  Targeted intervention	Country: Australia  Setting: in a separate room to the classroom  Participants: Age – 7-14 year olds Gender – 41% boys, 59% girls SES – diverse Ethnicity – primarily White, between 5 and 27% ethnic minorities across catchment areas.  Sample n=128 Intervention group n=? Monitoring group n=? (details in Dadds MR et al 1997)	Queensland Early Intervention and Prevention of Anxiety Project (QEIPAP) Coping Koala /Coping Cat Program  Targets anxious behaviour  Intervention group – Coping Koala Program to address anxiety, delivered by specialists in group sessions over 10 weeks. In weeks 3, 6 and 9 parents were taught skills to manage child's anxiety. Written booster package by post 14 months post intervention.  Monitoring group – No treatment unless requested by parents.	Length of study  T1 – Pretest  T2 – Posttest  T3 – 6 month follow up  T4 – 12 month follow up  T5 – 24 month follow up	The intervention was associated with a 20% improvement at 2 year follow up in the rates of anxiety disorder over and above the rate observed in children in a monitoring condition.	A  Different education systems	Blinding – data collectors at 12 and 24 month follow up.  Drop out/attrition: T4 - 16% T5 – 18%  Power – not specified.  Note age of sample falls in part outside of criteria.  Note lack of sample size details.
Desbiens N et al 2003 Peer groups and behaviour problems	Randomised controlled trial.  Randomised by	Country: Canada Quebec  Setting: in classroom	PARC programme (self-control, problem-solving and social competency programme for primary	10 weeks  T1 Pretest	Results showed no significant difference between treatment and control groups after the	A  Similar population	Blinding was not appropriate.  Attrition rate not

	<p>class.</p> <p>Evaluation of the effect of a programme of cooperative teaching using matched prosocial peers with behavioural problems.</p> <p>Quality: 1-</p> <p>Targeted intervention for children with behavioural problems.</p>	<p>in school hours</p> <p>Participants: Age – 3<sup>rd</sup> graders Gender – 102 boys, 110 girls SES – mid socio-economic environment Ethnicity – not specified</p> <p>Children in study group n=212</p> <p>Children identified as demonstrating behavioural problems n=54</p> <p>Treatment group 1 n=19</p> <p>Treatment group 2 n=18</p> <p>Control group n=17</p>	<p>school students with behavioural problems)</p> <p>Targeting improving social skills</p> <p>Group 1: Social Skills training and educational, cooperative activities (four 30 minute sessions per week). This involved peer pairing.</p> <p>Group 2: Social Skills training based on cognitive behavioural model (1-hour twice weekly sessions over 10 weeks)</p> <p>Group 3: Control</p> <p>Training delivered by graduates (discipline unspecified)</p>	<p>T2</p> <p>Several weeks after end of intervention</p>	<p>programme. A modest effect size showed a relative improvement for students with behavioural disorders who participated in social skills training.</p>	<p>groups in UK</p> <p>Different health and education systems</p>	<p>specified. Randomised by class.</p> <p>Sample size too small for multivariate analysis.</p> <p>No power calculation although some attempt made to reduce the effects of being underpowered.</p> <p>Teacher commitment to the programme varied.</p>
<p>Fraser MW et al 2004</p> <p>Conduct problems and peer rejection in childhood: a randomised trial of the Making Choices and Strong Families</p>	<p>Randomised controlled trial.</p> <p>Randomised by individual.</p> <p>To research: a) multicomponent</p>	<p>Country: USA North Carolina</p> <p>Setting: in school or community settings out of school hours, in a child's home and in a separate</p>	<p>Making Choices (MC) and Strong Families (SF) Programs</p> <p>Targets aggressive behaviour.</p> <p>SF:</p>	<p>Within academic year.</p> <p>Pretest Posttest</p>	<p>Compared with control group, children in the intervention showed improvement on 5 of 6 outcome measures, but this could of course have been due to attention effects. In particular</p>	<p>A</p> <p>African-American ethnicity not transferable to UK.</p>	<p>Blinding not appropriate</p> <p>ITT- incomplete data, excluded these children from the analysis. Wait list control group.</p>

Programs	<p>programmes that focus on individuals, family and school risk factors</p> <p>b) the effect of targeting younger children</p> <p>c) the iatrogenic effects of interventions that aggregate antisocial youth</p> <p>Quality: 1+</p> <p>Targeted intervention for children at risk of conduct problems.</p>	<p>classroom within school hours.</p> <p>Participants: Age – 6-12 years After attrition /removal of incomplete data - Gender– 63% boys, 37% girls. SES - Ethnicity – 85% African-American, 15% White, non Latino</p> <p>Purposive selection of schools Urban schools n=6 Rural/town schools n=3</p> <p>Sample: high risk children and their parents (n=86 children) Intervention group n=45 Control group n=41</p> <p>Also prosocial peers recruited to join intervention group to reduce iatrogenic effects but data not collected on them.</p>	<p>Delivered in the home. 15 lessons for parents on child development, parent-child communication, family problem-solving and child discipline.</p> <p>MC: 30 lessons on for children on social cognition and skills.</p> <p>Control group received routine services only.</p> <p>Intervention delivered by local agencies trained by the researchers in the MC and SF programmes.</p>		<p>intervention children showed increases in cognitive concentration in the classroom and were less relationally aggressive with peers.</p>	<p>Different health and education systems.</p>	<p>Drop out/attrition: 9.5% 25% when incomplete data sets are removed</p> <p>Power- states effect of the intervention was large but does not refer directly to a power calculation.</p>
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<p>Hudley, C et al 1993 An attributional intervention to reduce peer-directed aggression among African-American boys.</p>	<p>Randomised controlled trial.</p> <p>Randomised by individual.</p> <p>Does this attributional intervention reduce aggressive males' tendency to attribute hostile intentions to peers following ambiguously caused peer provocations?</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>Country: USA</p> <p>Setting: in a separate room to their classroom</p> <p>Participants: Age – 4<sup>th</sup>-6<sup>th</sup> graders Gender – boys SES – low Ethnicity – 80% African-American in school 1, 92% African-American in school 2.</p> <p>Sample n=108 Attributional intervention group x3 n=not specified Attention training group x3 n=not specified Control group n=not specified</p>	<p>Brain Power Programme</p> <p>Targets aggressive behaviour</p> <p>Attributional intervention group – 12 sessions, twice weekly, 40-60 minutes each over 6 weeks, delivered by educators. Focused on changing cognitions i.e. attributions to hostile intent.</p> <p>Attention training group – acted as participation control. 12 session Building Thinking Skills programme.</p> <p>Control group – no treatment, pretest and posttest only.</p>	<p>4 months</p> <p>T1 – Pretest</p> <p>T2 – posttest</p>	<p>Results from the programme were impressive. Compared to their counterparts in the attention training and control groups, aggressive subjects in the attribution-training programme showed a marked reduction in both the bias to assume hostile intent and a preference for aggressive behaviour. Aggressive intervention subjects were rated as significantly less aggressive by their teachers post intervention, even though teachers remained blind to treatment condition throughout the study.</p>	<p>B</p> <p>Allow for different ethnicities.</p> <p>Different education systems.</p>	<p>Blinding of teachers.</p> <p>Drop out/attrition: 8% among aggressive participants.</p> <p>Power – not specified.</p>
<p>Hudley C et al 1996 Attributional bias and reactive aggression</p> <p>This paper describes the Brain Power Programme, its theoretical basis and the rationale for this longitudinal study.</p>	<p>Randomised controlled trial. Longitudinal cohort study.</p> <p>Randomised by individual.</p> <p>If aggressive boys tendency to attribute</p>	<p>Country: USA</p> <p>Setting: in a separate classroom</p> <p>Participants: Age – 4<sup>th</sup>-6<sup>th</sup> graders Gender – boys SES – lower middle class - low</p>	<p>Brain Power programme - CBT</p> <p>Targeted behaviour - aggression</p> <p>1) CBT group – Attribution retraining in 12, twice weekly, 60-minute sessions. 4 aggressive and 2</p>	<p>18 months initial study</p> <p>T1 – Pretest</p> <p>T2 – posttest</p> <p>T3 -</p>	<p>No results presented in the paper.</p>	<p>B</p> <p>Allow for different ethnicities.</p> <p>Different education systems.</p>	<p>Blinding – not specified.</p> <p>Drop out/attrition: not specified.</p> <p>Power – not specified.</p> <p>Reports sample as</p>

However it stops short of reporting the results.	<p>hostile intentions to others in ambiguous social interactions causes a display of inappropriate peer-directed aggression, then a reduction in attributional bias should produce a decrease in reactive physical and verbal aggression directed towards peers. This study evaluates the effectiveness of an attribution retraining programme.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>Ethnicity – Latino, African-American Sample n=385</p> <p>Cohort 1: Intervention group 1) n=32 Intervention group 2) n=24 Control group n=13</p> <p>Cohort 2: Intervention group 1) n=41 Intervention group 2) n=37 Control group n=20</p> <p>Cohort 3: Intervention group 1) n=20 Intervention group 2) n=22 Control group n=17</p> <p>Cohort 4: Intervention group 1) n=13 Intervention group 2) n=18 Control group n=10</p> <p>Aggressive children n=267 Non aggressive children n=118</p>	<p>non aggressive children per group. Delivered by 'educational aides' (school staff) trained for 3 weeks in the application of the intervention.</p> <p>2) Attention training- Non-social problem- solving and critical thinking skills</p> <p>3) Control group – No attention</p>	12-18 month follow up			n=384 but in one place as n=385
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		Figures also available for aggressive/non aggressive and race by group.					
Jaycox LH et al 1994 Prevention of depressive symptoms in school children	<p>Randomised controlled trial. Longitudinal, prospective.</p> <p>'Assigned without bias' by school to experimental condition.</p> <p>The study hypothesised that as a result of the intervention there would be:</p> <ol style="list-style-type: none"> <li>1) Relief of depressive symptoms</li> <li>2) Prevention of depressive symptoms</li> <li>3) Relief of conduct problems at home</li> <li>4) Prevention of conduct problems at home</li> <li>5) Relief of classroom behavioural problems. This paper looks at first 6 month</li> </ol>	<p>Country: USA</p> <p>Setting: in classroom outside school hours</p> <p>Participants:</p> <p>Age – 10-13 years</p> <p>Gender – 54% boys, 36% girls</p> <p>SES – \$37,500 in 1991 ?low-mid</p> <p>Ethnicity – 83% Caucasian, 11% African-American, 6% other</p> <p>Sample n=143</p> <p>Intervention group n=69</p> <p>Control groups:</p> <p>Wait list n=24</p> <p>No participation n=50</p>	<p>Penn Prevention program – Cognitive behavioural therapy included.</p> <p>Targets prevention of depression</p> <p>Cognitive training group x2- 11 weekly, 90-minute sessions</p> <p>Social problem-solving group x2– 11 weekly, 90-minute sessions</p> <p>Cognitive and social problem-solving group x2 – 11 weekly, 90-minute sessions</p> <p>Wait list control group x2</p> <p>No participation control group x2</p> <p>Not specified who delivered the programme.</p>	<p>5 years – reports 6 month follow up</p> <p>T1 – Pretest</p> <p>T2 – Posttest</p> <p>T3 – 6 months after intervention</p>	<p>Results showed significant relief from and prevention of depressive symptoms for treatment groups as opposed to controls. This was maintained at 6-month follow up. There were better treatment effects for those children experiencing more parental conflict at home.</p>	<p>A</p> <p>Different education systems.</p>	<p>Blinding – not applicable/not used.</p> <p>Drop out/attrition: No differences between groups but figures not given.</p> <p>Power – not specified.</p>

	<p>follow up.</p> <p>Quality: 1+</p> <p>Targeted intervention</p>						
<p>Kam C-M et al 2004</p> <p>Sustained effects of the PATHS curriculum on the social and psychological adjustment of children in special education</p>	<p>Randomised controlled trial.</p> <p>Randomised by class and according to teachers who opted into study.</p> <p>An examination of the long-term effectiveness of PATHS with children who have been identified with special needs.</p> <p>Quality: 1+</p> <p>Indicated intervention for children with disabilities.</p>	<p>Country: USA</p> <p>Seattle, Highline and Shoreline</p> <p>Setting: in classrooms within school hours</p> <p>Participants:</p> <p>Age – 1<sup>st</sup> – 3<sup>rd</sup> graders</p> <p>Gender – 97 boys, 36 girls</p> <p>SES – not specified</p> <p>Ethnicity – 88 (66%) white, 27 (20%) African-American, 18 (14%) other</p> <p>Disability – 53 learning disabilities, 23 mild mental retardation, 31 emotional and behavioural disorders, 21 physical or health impairments, 5 multiple handicaps.</p> <p>Sample n=133</p>	<p>PATHS curriculum (pilot version)</p> <p>PATHS curriculum has three units; self-control, feelings and problem-solving.</p> <p>One intervention group and one control group. Control group did not receive the intervention.</p> <p>Intervention was delivered by teachers, following a 3-day training workshop. They were supported by PATHS project staff.</p>	<p>1 year intervention</p> <p>follow up testing for 3 years thereafter</p> <p>Pretest</p> <p>Grade 1</p> <p>Grade 2</p> <p>Grade 3</p> <p>Selected data from follow up – time etc not clear.</p>	<p>Results showed that the intervention reduced the rate of growth of teacher-reported internalising and externalising behaviours 2 years after the intervention and also produced a sustained reduction in depressive symptoms reported by the children.</p>	<p>B</p> <p>Differences between UK and US education systems.</p> <p>Focuses on children in special educational needs setting.</p>	<p>Blinding not appropriate.</p> <p>Teachers knew if their class was allocated to the intervention or not.</p> <p>Drop out/attrition: between 6% and 48% across scales/outcomes and follow up times.</p> <p>Power – not specified.</p>



		Allocation to groups not specified.					
King C et al 1990 An experimental evaluation of a school-based program for children at risk: Wisconsin Early Intervention	Randomised controlled trial  Schools not randomised to conditions. Teachers randomised to referral method. Children randomised individually but within their school.  To describe the nature and effectiveness of Wisconsin Early Intervention  Quality: 1+  Targeted intervention	Country: USA  Setting: presume separate classroom (just states intervention delivered in small groups)  Participants: Age – kindergarten to 4 <sup>th</sup> grade Gender – 61% boys, 39% girls SES – not stated Ethnicity – not stated Rural area  Sample n=135 Intervention groups: School A, full service n=36 School A partial service n=42 School B partial service n=24  Control group: School B no treatment n=25	Wisconsin Early Intervention (WEI)  Targets social adjustment problems  To test different methods, participants were referred to the study by their teachers in one of 2 ways: checklist or consultation with WEI co-ordinator.  Intervention groups: School A, full service- Social skills group and parent and teacher consultation service with WEI specialists. Social skills program consisted of 24 group sessions weekly for 45-50 minutes. It was delivered by trained and supervised 'over 55' paraprofessionals.  School A partial service-consultation service only.  School B partial service-consultation service only.  Control group: School B no treatment.	4 month intervention  Pretest Posttest	Regardless of services offered, children consistently improved their competencies and decreased their problem behaviours over time. Explanation for this may be found in both panel or attention effects as well as in developmental changes in cognitive abilities and social behaviours. Some evidence supported the efficacy of the full intervention programme, with full service children experiencing less depressed mood post intervention, as well as greater self confidence and greater initiative.	A  Different education system.	Blinding – of data assessors where possible.  Drop out/attrition: Not stated  Data from one of three factors on the depression rating scale were excluded from analysis due to low interrater reliability.  Power – not specified.

King NJ et al 1998 Cognitive-behavioral treatment of school-refusing children: a controlled evaluation	<p>Randomised controlled trial.</p> <p>Randomised by individual.</p> <p>To evaluate the efficacy of a CBT programme for school-refusing children</p> <p>Quality: 1++</p> <p>Indicated intervention on children referred because of school refusal.</p>	<p>Country: Australia</p> <p>Setting: in a school refusal clinic then moving into the school classroom within the school day</p> <p>Participants: Age – 5-15 years, children aged 5-11 years n=18 Gender – 18 boys, 16 girls in study, gender of those under 11 not specified. SES – mean rating 3.4 (Broom et al 1965) Ethnicity – not specified.</p> <p>Sample n=34 Intervention group n=17 Wait list control group n=17</p>	<p>Intervention was delivered by psychologists who went on to train parents and teachers.</p> <p>Child therapy: 50-minute, individual, therapy sessions x6 over 4 weeks.</p> <p>Parent training: 50-minute sessions on child behaviour management skills x5 run concurrently with child therapy sessions.</p> <p>Teacher training: One meeting to discuss the plan and the teacher's role in improving school attendance.</p> <p>Waiting list control group: Children were offered treatment after 4 weeks of intervention sessions.</p>	<p>6 weeks</p> <p>T1 Pretest.</p> <p>T2 Two weeks post intervention</p>	Relative to waiting list controls children who received CBT exhibited a significant improvement in attendance. They also improved on self-reports of fear, anxiety, depression and coping. Maintenance of therapeutic gains was demonstrated at a 3-month follow up assessment. The research design does not allow us to say which of the elements of the treatment was responsible for the effect.	<p>A</p> <p>Different health and education systems.</p>	<p>Blinding not specified.</p> <p>ITT was covered by a wait control group and 0% drop out rate.</p> <p>Power not specified.</p> <p>Pre and post treatment follow up data extracted but not available for control.</p>
Larkin R et al 1999 Evaluating cognitive-behavioral group counselling to improve elementary school students' self-esteem, self-control	<p>Randomised controlled trial.</p> <p>Randomised by individual.</p> <p>To evaluate the</p>	<p>Country: USA</p> <p>Setting: In class within school hours and in a separate room to their class.</p>	<p>Cognitive Behavioural Therapy (CBT)</p> <p>Targets disruptive behaviour</p> <p>Group counselling – 8 sessions of group CBT</p>	<p>2 month intervention plus 5 month follow up</p> <p>T1 – Pretest</p>	Following intervention the treated group had higher self esteem, perceived self control and were graded better on behaviour by teachers.	<p>A</p> <p>Children referred for treatment.</p> <p>Different</p>	<p>Blinding – teachers not aware of purpose or allocation.</p> <p>Drop out/attrition: not specified.</p>

and classroom behavior.	effectiveness of cognitive-behavioral group counselling provided to behaviourally disruptive elementary school children.  Quality: 1-  Indicated intervention – referred children	Participants: Age – 1 <sup>st</sup> - 3 <sup>rd</sup> graders Gender – intervention group, 71% boys, control group, 86% boys SES – not specified. Ethnicity – 94% White, 4% African-American, 1% Asian in rural school . 42% Hispanic, 32% African-American, 19% White, 5% Asian, 2% multiracial in city school. Group ethnicity available.  Sample n=52 Intervention group n=31 Wait control group n=21	delivered by a specialist for 1 hour weekly.  Wait control group – no treatment	T2 – Posttest  T3 – 5 months later  (extra pretest for wait control group)		education system.	Power – not specified.
Liddle B et al 1990 Cognitive-behaviour therapy (CBT) with depressed primary school children: a cautionary note	Randomised controlled trial.  Randomised by individual.  To investigate the effectiveness of a treatment package which was designed to tackle the major	Country: Australia  Setting: in a separate room to classroom  Participants: Age – 7-12 years Gender – SES – Ethnicity –	CBT Social competence training (SCT)  Targets childhood depression  Social competence training – 8 weekly, 1-hour group sessions delivered by psychologists, based on adult CBT.	2 months  T1 – Pretest  T2 – Posttest  T3 – 3 month follow up	Results indicated a decline in depression scores during the treatment period across all groups and this continued at two month follow up. The authors therefore conclude that the social competence training was not effective. They posit a variety of reasons why this	C  Intervention did not improve outcomes so may not be suitable.  Different health care	Blinding – not specified and largely inappropriate.  Drop out/attrition: not specified.  Power – not specified. Small sample size.

	<p>correlates of child depression, namely social skills deficits, interpersonal problem solving deficits and maladaptive cognitive coping styles.</p> <p>Quality: 1+</p> <p>Targeted intervention</p>	<p>Sample n=</p> <p>Intervention groups: Social competence training n=11</p> <p>Attention placebo n=10</p> <p>Waiting list control n=10</p>	<p>Attention placebo- 8 weekly, 1-hour group drama sessions, delivered by psychologists.</p> <p>Waiting list control- No treatment</p>	(data incomplete)	<p>might be the case, some of which throw doubts on the methodological rigour of previous studies (in terms of recruitment, failure to follow up etc), but some of which reflect on their own study, as in concerns over the length and depth of the intervention they had framed. They note in particular that the children were not a uniform group in terms of overt behaviour. Some were withdrawn and quiet; others 'acted out' and were aggressive and difficult. This made instruction and role-play more difficult. It is notable that this differs from some of the previous studies described where hyperactive and aggressive children were deliberately excluded from study because of the confounding effects of their co-morbid conditions.</p>	systems.	
Lochman JE et al 1992 Cognitive-behavioral intervention with	<p>Randomised controlled trial</p> <p>Unit of</p>	<p>Country: USA</p> <p>Setting and participants details</p>	Anger Coping Programme – predates Coping Power Programme	<p>Length of intervention not specified.</p> <p>3 year follow</p>	<p>Three years after intervention, boys referred by classroom teachers as highly aggressive and</p>		<p>Blinding</p> <p>Drop out/attrition</p> <p>Power intervention reported</p>

aggressive boys: three-year follow-up and preventive effects	<p>randomisation not specified- reported in Lochman 1985, Lochman et al 1984, Lochman and Curry 1986.</p> <p>To examine the longer term maintenance of treatment gains or prevention effects following cognitive behavioural therapy (CBT).</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>reported in Lochman 1985, Lochman et al 1984, Lochman and Curry 1986.</p> <p>Sample n=145 Intervention group (from 3 successive cohorts) n=31 Untreated aggressive group (two sub-groups from the first cohort) n=52 Untreated non aggressive group From the first cohort) n=62</p>	<p>Targets aggressive behaviour.</p> <p>Intervention group – Anger Coping programme. Based on CBT. Details of intervention reported in Lochman 1985, Lochman et al 1984, Lochman and Curry 1986.</p> <p>Follow up assessment of three cohorts 2½-3½ years post intervention.</p>	<p>up</p> <p>T1 – 2½-3½ years post intervention for each of three groups</p>	<p>disruptive who had received an anger coping program were compared with a group of untreated boys. Those that had received the anger coping program had lower rates of drug and alcohol involvement and had higher levels of self-esteem and social problem-solving skills. Those that had received the anger coping program were not significantly different from previously nonaggressive boys on these variables at follow-up. Although the overall intervention did not have longer term effects on delinquency rate or classroom behaviour, a subset of boys who also received booster sessions did display maintenance of certain classroom behaviour improvement.</p>		<p>in Lochman 1985, Lochman et al 1984, Lochman and Curry 1986.</p>
Lochman JE et al 1993 Effectiveness of a social relations intervention program for aggressive and nonaggressive, rejected children	<p>Randomised controlled trial.</p> <p>Unit of randomisation is not specified.</p>	<p>Country: USA</p> <p>Setting: In a separate classroom</p> <p>Participants: Age – 3<sup>rd</sup> graders</p>	<p>Social relations Training Program – a pre-runner to Coping Power</p> <p>Targets aggression, social rejection and peer relations.</p>	<p>7 months</p> <p>T1 – Pretest</p> <p>T2 – Posttest</p>	<p>At both the post-treatment and the 1-year follow-up assessments, the social relations intervention was found to be effective with aggressive, rejected children, but not rejected-</p>	<p>A</p> <p>Different education systems.</p>	<p>Blinding – not specified</p> <p>Drop out/attrition: for the four groups 31%, 49%, 18% and 41%</p>

	<p>Hypothesis: a) In comparison to the control condition, the social relations intervention will produce significant improvements in teacher and peer ratings of social status, problem behaviours and prosocial behaviours at post treatment and 1 year follow up. B) These interventions will effects will be more pronounced for the aggressive, rejected children than the other rejected children.</p> <p>Quality: 1+</p> <p>Targeted intervention</p>	<p>Gender – 52% boys, 48% girls SES – lower, middle neighbourhoods Ethnicity – Black</p> <p>Sample n=52 Intervention groups: Aggressive, rejected group n=13 Rejected only group n=33</p> <p>Control groups: Aggressive, rejected group n=11 Rejected only n=29</p>	<p>Children with low reading scores all received extra tutoring. There were representatives of this group in all four study groups.</p> <p>Intervention groups: Aggressive, rejected group received a social relations training programme, consisting of 26 individual session, 30 minutes each and 8 group sessions. Twice weekly over 7 months. Delivered by specialists.</p> <p>Rejected only group received the intervention as above.</p> <p>Control groups: Aggressive, rejected group – usual school counselling service.</p> <p>Rejected only group – usual school counselling service.</p>	T3 – 1 year later	only children. Relative to that aggressive-rejected control group, the aggressive-rejected intervention group had significant reductions in aggression and social rejection and improvements in peer prosocial behaviour at post-intervention and 1-year follow-up.		Power – not specified.
<p>Lochman JE et al 2002</p> <p>The Coping Power Program at the middle-school transition: universal and indicated prevention effects</p>	<p>Randomised controlled trial.</p> <p>Random assignment of children for targeted intervention.</p> <p>Random assignment of classes for</p>	<p>Country: USA</p> <p>Setting: in classroom outside school hours, in a separate classroom and outside school premises.</p>	<p>Coping Power Program</p> <p>Targets delinquency, substance abuse and school behaviour.</p> <p>Group 1 – classroom (universal) intervention only. Coping with the Middle</p>	<p>1.5 years</p> <p>T1 Baseline pretest</p> <p>T2 Summer between 5<sup>th</sup></p>	<p>Results indicated that all three interventions produced relatively lower rates of substance use at post-intervention compared with controls. The interventions also produced positive effects on children's social</p>	<p>A</p> <p>Different education systems and ethnic mix.</p>	<p>Blinding of teachers assessments was intended but in reality failed.</p> <p>Blinding of pre-test assessors not mentioned in this paper.</p>

	<p>universal intervention.</p> <p>Hypotheses: With targeted children a) a universal prevention programme directed at parents and at teachers and designed to have ecological influence on the social bonds between home and school, child and school, and parent and child will produce prevention of substance abuse and improvements in the four predictor variables (social competence, self-regulation, school bonding, parental investment) compared with randomly assigned comparison children and families. b) Coping Power will produce these results. c) By combining universal and</p>	<p>Participants: Age - 5<sup>th</sup> and 6<sup>th</sup> graders Gender – 2:1boys:girls SES – not stated Ethnicity – 75%-81% African-American, the rest Caucasian, plus 2 Hispanic, 4 other Group 1 n=62 Group 2 n=61 Group 3 n=59 Group 4 n=63 Children and parents n=672</p>	<p>School Transitions Program. This included parent and teacher meetings to promote parent involvement and address parental concerns over the transition. Group 2- Coping Power Program (targeted) and classroom (universal) intervention Group 3 – Coping Power Program (targeted) only Group 4 – Control</p> <p>Intervention delivered by a combination of teacher and specialist</p>	<p>and 6th Grade</p> <p>T3 Posttest Grade 6</p>	<p>competence and self-regulation, and parent's parenting skills. However, no effects were seen on school bonding.</p>		<p>Power not mentioned in this study but is in other papers on the same study.</p> <p>Relatively small sample attrition rate over time.</p> <p>Missed assessments.</p>
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	<p>targeted prevention components more prevention of substance abuse and greater change in the four predictor variables will be produced.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>						
<p>Lochman, JE et al 2003</p> <p>Effectiveness of the Coping Power Program and of classroom intervention with aggressive children: outcomes at a 1-year follow-up</p>	<p>Randomised control trial.</p> <p>Random assignment of children for targeted intervention.</p> <p>Random assignment of classes for universal intervention.</p> <p>One in a series of studies to assess the efficacy of the Coping Power Program. This study aims to discover if this program has a significant effect on delinquency, substance abuse</p>	<p>Country: USA</p> <p>Setting: in classrooms within the school curriculum and taking participants aside into a separate classroom.</p> <p>Participants: Age – 5<sup>th</sup> and 6<sup>th</sup> graders</p> <p>Gender – 2:1boys:girls</p> <p>SES – not stated</p> <p>Ethnicity – 75%-81% African-American, the rest Caucasian, plus 2 Hispanic, 4 other</p> <p>Group 1 n=62</p> <p>Group 2 n=61</p> <p>Group 3 n=59</p>	<p>Coping Power Program</p> <p>Targets delinquency, substance abuse and school behaviour.</p> <p>Group 1 – classroom intervention only. Coping with the Middle School Transitions Program. This included parent and teacher meetings to promote parent involvement and address parental concerns over the transition.</p> <p>Group 2- Coping Power Program and classroom intervention</p> <p>Group 3 – Coping Power Program only</p> <p>Group 4 – Control</p>	<p>1.5 years</p> <p>T1 Baseline pretest</p> <p>T2 Summer between 5<sup>th</sup> and 6<sup>th</sup> Grade</p> <p>T3 Posttest Grade 6</p>	<p>The results of this study show that the Coping Power program led to preventative effects on delinquency and on substance use for older and moderate-risk children. The Coping Power program, in conjunction with a classroom-level intervention, also reduced school aggression 1 year after the intervention was completed. In addition it appears that the classroom intervention facilitates radiating effects (positive contamination) on reduced substance use for other at-risk children in the same classroom who</p>	<p>A</p> <p>Different education systems and ethnic mix.</p>	<p>Pre-test assessment data collection staff blinded.</p> <p>No mention of lack of blinding of teachers.</p> <p>Relatively small sample.</p> <p>Attrition rate over time.</p> <p>Missed assessments.</p>



	<p>and school behaviour outcomes at 1-year follow-up.</p> <p>Quality 1++</p> <p>Targeted at the 31% most aggressive and disruptive pupils as rated by their teachers.</p>	<p>Group 4 n=63 Children and parents n=672</p>	<p>Intervention delivered by a combination of teacher and specialist.</p>		<p>did not receive the program.</p>		
<p>Lochman JE et al 2004 The Coping Power Program for preadolescent aggressive boys and their parents: outcome effects at the 1-year follow-up</p>	<p>Randomised controlled trial.</p> <p>Random assignment of children for targeted intervention.</p> <p>Random assignment of classes for universal intervention.</p> <p>One in a series of studies to assess the efficacy of the Coping Power Program. (See Lochman 2002, 2003) This study looks at the effectiveness of the parent and child intervention of the Coping Power Program.</p>	<p>Country: USA</p> <p>Setting: in classroom outside school hours, in a separate classroom and outside school premises.</p> <p>Participants: Age - 5<sup>th</sup> and 6<sup>th</sup> graders Gender – boys SES – not stated Ethnicity – 75%-81% African-American, the rest Caucasian, plus 2 Hispanic, 4 other Group 1 n=62 Group 2 n=61 Group 3 n=59 Group 4 n=63 Children and parents n=672</p>	<p>Coping Power Program</p> <p>Targets delinquency, substance abuse and school behaviour.</p> <p>Group 1 – classroom intervention only. Coping with the Middle School Transitions Program. This included parent and teacher meetings to promote parent involvement and address parental concerns over the transition. Group 2- Coping Power Program and classroom intervention Group 3 – Coping Power Program only Group 4 – Control</p> <p>Intervention delivered by a combination of teacher and specialist.</p>	<p>1.5 years</p> <p>T1 Baseline pretest</p> <p>T2 Summer between 5<sup>th</sup> and 6<sup>th</sup> Grade</p> <p>T3 Posttest Grade 6</p>	<p>The results of this study show that the Coping Power program, whether is was just directed at the child or included child and parent components, produced lower rates of convert delinquent behaviour and of parent-rated substance use at the 1-year follow-up compared with the control group. These intervention effects were most apparent for the full Coping Power program with parent and child components. Boys also displayed teacher-rated behavioural improvements in school during the follow-up year, and these effects appeared to be primarily influenced by the child component of the Coping</p>	<p>A</p> <p>Different education systems and ethnic mix.</p>	<p>Blinding and power not mentioned in this study but are in other papers on the same study.</p> <p>Relatively small sample</p> <p>Attrition rate over time</p> <p>Missed assessments</p>

	<p>Quality: 1++</p> <p>Targeted at the 31% most aggressive and disruptive pupils as rated by their teachers.</p>				Power program.		
<p>Metropolitan Area Child Study Research Group 2002</p> <p>A cognitive-ecological approach to preventing aggression in urban settings: initial outcome for high-risk children</p>	<p>Randomised controlled trial. Longitudinal.</p> <p>Randomised by school.</p> <p>Focuses on high risk children within trial.</p> <p>1) Does a 2-year universal intervention prevent aggression and improve achievement among high-risk children?</p> <p>2) Are the effects of 1) enhanced by adding a small-group peer training programme and a small-group programme plus a family intervention?</p> <p>3) A comparison of the effects of interventions carried</p>	<p>Country: USA, Chicago (inner city) and Aurora (other urban poor), Illinois</p> <p>Setting: in a separate room in school</p> <p>Participants: Age – 1<sup>st</sup> – 6<sup>th</sup> graders Gender – 60.7% boys, SES – lower income neighbourhoods, inner city poorer than urban area Ethnicity – 47.6% African-American, 36.8% Hispanic, 15.5% non-Hispanic White. Allocation to groups reflects ethnicity, which in turn is closely related to geographical setting.</p>	<p>Classroom intervention -Yes I can</p> <p>Level A condition: 2-year intervention providing teacher consultation and a 40 lesson social-cognitive curriculum delivered class-wide. (Not clear if teachers or specialists delivered programme).</p> <p>Level B condition: Yes I Can programme plus small-group peer-skilling intervention.</p> <p>Level C condition: Yes I Can programme plus small-group intervention plus parenting skills training programme.</p> <p>Control condition: no intervention</p> <p>Level A, B and C interventions were delivered</p>	<p>8 years</p> <p>Pretest Posttest for each level of intervention</p>	<p>Results indicate that comprehensive interventions can be effective for children in schools in settings with resources adequate to support learning and development but some unintended results can occur in schools in the most distressed communities when delivered too late in development. The most significant results occurred when the comprehensive intervention was offered early, and these effects were doubled when it was followed by an additional 'booster 2 year intervention in grades 5 and 6. None of the interventions was effective in preventing aggression among older elementary school children. Significant 'school effects'</p>	<p>A</p> <p>Different health and education systems.</p> <p>High drop out rate reduces generalisability .</p>	<p>Blinding is not appropriate.</p> <p>Drop out/attrition rate: 6 schools dropped out over time</p> <p>High risk children 23% drop out after 1 year, 30% drop out after 2 years</p> <p>Power referred to and attempts made to enrol sufficient numbers and account for loss of participants but no evidence that a power calculation was carried out.</p>

	<p>out on children of different ages.</p> <p>Quality: 1++</p> <p>Targeted intervention at aggressive pupils from poor city/urban communities</p>	<p>Schools n=8</p> <p>Total number of children n=4471</p> <p>High risk children n=2181</p> <p>Early intervention n=1022</p> <p>n=1118</p> <p>Late intervention n=558</p> <p>n=484</p> <p>Early and late intervention n=291</p> <p>n=289</p>	<p>at three different stages: Grades 2-3, Grades 5-6 and at both grades.</p> <p>Not clear who delivers the intervention.</p>		<p>were evident and the variance accounted for by schools may reflect characteristics of the schools themselves. An adverse effect is reported with a note that similar effects have been found in other studies, namely that the general enhancement plus small group intervention appeared to lead to a maintaining of high levels of aggression when administered later in development in inner city communities. Such effects have been attributed to at risk youths promoting negative norms and beliefs about aggression or delinquency – a form of deviancy training that provides reinforcement for aggression. The authors also comment on the transportability of the programme. Though this intervention reported significant effects the volume of resources applied to achieve this is probably far greater than would be available within</p>		
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					any normal school programme.		
Miranda A et al 2002 Effectiveness of a school-based multicomponent program for the treatment of children with ADHD	<p>Randomised controlled trial.</p> <p>Randomised by teacher's names. The teacher's class then became the group and children who met the ADHD criteria of the study became participants. The teachers had all volunteered for training on teaching ADHD children.</p> <p>Evaluation of the efficacy of a multicomponent programme for treating ADHD.</p> <p>Quality: 1+</p> <p>Indicated intervention for children with scores suggesting ADHD.</p>	<p>Country: Spain, Valencia</p> <p>Setting: in classrooms in school hours</p> <p>Participants: Age – 3<sup>rd</sup> and 4<sup>th</sup> graders Gender – 42 boys, 8 girls SES – low (mostly) Ethnicity – White, Spanish speaking (mostly)</p> <p>Sample: Children n=52 Teachers n=30</p> <p>Intervention group n=30 Control group n=22 (both groups scattered throughout an unspecified number of classes and schools)</p>	<p>Programme based on experience of research team and literature search.</p> <p>Targeting children with ADHD.</p> <p>Intervention group: Classes where teachers were trained by educational psychologists to deliver the intervention. Teacher training consisted of an introductory meeting followed by eight 3-hour sessions per month and weekly individual interviews with the specialists.</p> <p>Control group: No intervention.</p>	<p>15 weeks</p> <p>Pretest Posttest</p>	Teacher and pupil ratings of the scheme were positive but there were no measurable changes in the proportions of children meeting diagnostic criteria for ADHD. There were no measurements at follow up.	A  Different education system.	<p>Child assessors at pretest and posttest were blind to treatment groups.</p> <p>Teachers aware of allocation, delivering intervention and assessing effect.</p> <p>ITT – one child from intervention and control groups had incomplete data and was excluded from the analysis.</p> <p>Drop out rate: 4%</p> <p>Multiple testing not controlled for.</p> <p>No between group change data.</p> <p>No power calculation.</p>
Mize J et al 1990 A cognitive-social learning approach to social skills learning	<p>Randomised controlled trial.</p> <p>Randomised by</p>	<p>Country: USA</p> <p>Setting: in a separate room to</p>	<p>Targets peer acceptance and low- status behaviour</p> <p>Social skills training group –</p>	<p>3 months</p> <p>T1 – Pretest</p>	Trained children showed a significant increase in their use of the trained skills comments and leads from	A  Different education	Blinding – some blinding of observers.

with low-status pre-school children	<p>individual.</p> <p>To examine changes in the behaviour and peer acceptance of low-status preschool children as a result of social skills training.</p> <p>Quality: 1- Targeted intervention</p>	<p>classroom</p> <p>Participants: Age – 4-5yrs Gender –boys and girls, % not specified SES – low Ethnicity – predominantly White</p> <p>Sample n=33 Intervention group n=18 Attention control group n=15</p>	<p>8 weekly, 30-minute sessions delivered by specialists.</p> <p>Attention control group- As above but sessions consisted of play only.</p>	<p>T2 – Posttest</p> <p>T3 – 1 month follow up</p>	<p>pre-test to post-test, whereas control group children showed no change. Increase in skill use in the classroom with peers was correlated with improvements in children's knowledge of friendly social strategies from pre- to post-test.</p>	<p>systems.</p>	<p>Drop out/attrition: 36% for 1 month follow up</p> <p>Power – not specified.</p>
<p>O'Donnell J et al 1995</p> <p>Preventing school failure, drug use and delinquency among low-income children: long-term intervention in elementary schools</p>	<p>Randomised controlled trial-quasi-experimental as added some participants in later</p> <p>Randomised by school and by individual.</p> <p>To what extent do strategies that combine teacher and parent training reduce academic failure, drug abuse and crime among children of poverty.</p> <p>Quality: 1++</p>	<p>Country: USA</p> <p>Setting: in the classroom within school hours</p> <p>Participants-a high risk sub- sample of full study: Age – 5<sup>th</sup> and 6<sup>th</sup> graders Gender – 46% boys, 54% girls SES – low Ethnicity – 24% European-American, 42% African-American, 25% Asian-American, 6% native-American and</p>	<p>Targets academic achievement and social-cognitive skills to prevent delinquent behaviour.</p> <p>Classroom intervention– Teachers trained in proactive classroom management and interactive teaching and cooperative learning methods. Length of training not specified.</p> <p>Child intervention- Grade 1 and 6 Cognitive and social skills training from classroom teachers. Grade 6 Refusal skills training for 4 hours.</p>	<p>Ongoing longitudinal study, having begun in 1981 with children entering school in that year.</p> <p>T1 – Beginning of 5<sup>th</sup> grade</p> <p>T2 – End of 6<sup>th</sup> grade.</p>	<p>Compared to a low-income control group children in the intervention group showed enhanced school commitment and class participation. Girls in the group showed lower rates of substance use in adolescence and boys showed increased social and schoolwork skills.</p>	<p>B</p> <p>Low income population of Seattle may have distinctive features.</p> <p>Different education systems.</p>	<p>Blinding-not specified although schools allocated to control condition.</p> <p>Drop out/attrition: explained but no figures.</p> <p>Power – not specified.</p>

	Targeted intervention	3% other. Sample n=177 Intervention group n=75 Control group n=102	<p>Parent intervention – Grade 1, 2, 3, 5 and 6 attended on a voluntary basis, delivered by project staff.</p> <p>Grade 1 and 2: seven sessions on behaviour management</p> <p>Grade 2 and 3: four sessions on helping your child academically.</p> <p>Grade 5 and 6: five sessions on antisocial behaviour prevention.</p> <p>No treatment control group.</p> <p>Comparators</p> <p>Delivered by</p>				
Prinz RJ et al 1994 An evaluation of peer coping-skills training for childhood aggression	<p>Randomised controlled trial.</p> <p>Randomised by class and individual then matched with prosocial peers.</p> <p>a)To assess initial and subsequent effects of peer coping skills training on aggressive behaviour, prosocial coping via</p>	<p>Country: USA</p> <p>Setting: in a separate room to their classroom</p> <p>Participants: Age – 1<sup>st</sup> – 3<sup>rd</sup> graders Gender (by end of intervention) – Intervention group: 57% girls, 43% boys Control group: 50% girls, 50% boys</p>	<p>Peer Coping Skills</p> <p>Targeted behaviour – aggression.</p> <p>Peer coping skills training plus minimal classroom intervention - Four matched pairs per group, attended weekly, 50-minute long sessions delivered by specialists. Plus Good News Note system throughout school year.</p>	<p>9 months</p> <p>T1 – Pretest</p> <p>T2 – mid intervention</p> <p>T3 – posttest</p>	<p>Outcomes measured at post test and 6 months later showed positive effects. Competent non-aggressive children who too part suffered no adverse consequences and also demonstrated skill enhancement.</p>	<p>A</p> <p>Different education systems</p>	<p>Observers blinded</p> <p>Drop out/attrition: 14.3%</p> <p>Power – not specified.</p>

	<p>information exchange and social adaptation of children in early elementary school who are at high risk for conduct disorder.</p> <p>b) To determine whether peer coping skills training has potentially iatrogenic effects on competent non-aggressive participants.</p> <p>c) To document child, parent and teacher acceptability of peer coping skills training.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>54% and 47% non aggressive girls, 72% and 66% non aggressive ethnic minorities</p> <p>SES –</p> <p>Ethnicity (by end of intervention) –</p> <p>Intervention group 76% ethnic minorities (African American and Hispanic)</p> <p>Control group 66% ethnic minorities (African American and Hispanic)</p> <p>Aggressive sample n=95</p> <p>Non-aggressive sample n=101</p> <p>Intervention group, aggressive children n=48</p> <p>Intervention group, non aggressive children n=52</p> <p>Control group, aggressive children n=47</p> <p>Control group, non aggressive children n=49</p>	<p>Minimal classroom intervention only – Good News Note system throughout school year</p>				
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Reid MJ et al 2003 Follow-up of children who received the Incredible Years intervention for oppositional-defiant disorder: maintenance and prediction of 2-year outcome	<p>Randomised controlled trial.</p> <p>Randomised by individual.</p> <p>Does adding child or teacher elements to parent training programmes improve preventive effects on later conduct problems?</p> <p>Quality: 1+</p> <p>Indicated intervention for families requesting or referred for treatment at a parenting clinic.</p>	<p>Country: USA</p> <p>Setting: this part of the programme i.e. parent and teacher training takes place in a clinic setting, however the teachers then returns to implement the strategies in the classroom</p> <p>Participants: Age – 4-8 years old, 26% preschool, average age 5years 9months Gender – 90% boys, 10% girls SES – 0.94-2.72 in Hollingshead Social Class Category i.e. professionals Ethnicity – 71-84% Euro-American across groups</p> <p>Sample: n=159 Intervention and control group numbers not stated.</p>	<p>Incredible Years (PT and TT) (Dinosaur School (CT) not mentioned but is part of this study)</p> <p>Targets oppositional defiant disorder behaviours</p> <p>Group 1: Parent training alone Group 2: Child training alone Group 3: Parent training plus teacher training (includes collaboration between parents and teachers) Group 4: Child training plus teacher training Group 5: Parent and child training plus teacher training Group 6: Waiting list control group (no treatment)</p> <p>Child training involved delivering the Dinosaur School programme. Weekly 2-hour sessions for 18-19 weeks delivered by two therapists at the clinic. It</p>	<p>6 months intervention 2-year follow-up</p> <p>Pretest Posttest 1 year follow up 2 year follow up</p>	<p>At the two year follow-up, approximately 75% of children were functioning in the normal range according to parent and teachers reports. 25% of children were classified as treatment nonresponders at home and/or at school. Teacher training added significantly to long-term school outcomes for children who had pervasive behaviour problems. Baseline, post and 1-year follow-up parenting practices distinguished between home treatment responders and nonresponders (parents of nonresponders were more critical and less positive). For children with baseline pervasive home-school problems, baseline maternal parenting and post-treatment marital discord were associated with poor treatment response at home at the 2-year follow-up.</p>	<p>A Education systems differ between US and UK.</p>	<p>Blinding of observers to condition, otherwise not possible to blind.</p> <p>Drop out/attrition rate: 9%</p> <p>Power – not specified.</p> <p>Note: SES higher than in most other studies in this review.</p> <p>Few ethnic minorities in sample.</p>



		Families in 3 cohorts	<p>addresses social skills, conflict resolution, loneliness, negative attributions, empathy, communication, co-operation and compliance with parent and teacher requests.</p> <p>Parent training involved weekly 2-hour sessions for 22-24 weeks delivered by therapists at the clinic. It is a video based course on parenting and interpersonal skills.</p> <p>Teacher training involved the Incredible Years Programme delivered over 4 days of group training sequenced through the school year. Delivered by therapists at the clinic, it covers effective classroom strategies to manage misbehaviour, promote positive relationships and strengthen social skills. Training focuses on strategies to help aggressive/rejected/difficult children.</p>				
Stein BD et al 2003 A mental health intervention for schoolchildren	Randomised controlled trial  Randomised by	Country: USA  Setting: in a separate classroom	Cognitive Behavioural Intervention for Trauma in Schools (CBITS)	6 months  T1 – Pretest CBT	The results showed that students who received this brief standardised intervention, delivered by	B  This level of exposure and	Blinding – not applicable.  Drop out/attrition: 7%

exposed to violence	<p>individual.</p> <p>To evaluate the effectiveness of a collaboratively designed school-based intervention for reducing children's symptoms of posttraumatic stress disorder (PTSD) and depression that have resulted from exposure to violence.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>Participants: Age – 11 years Gender – 33% and 38% SES – disadvantaged Ethnicity – not specified</p> <p>Sample n=126 Early intervention group n=61 Wait list control group n=65</p>	<p>Targets depression and PTSD</p> <p>CBT- 10 weekly sessions of group therapy delivered by specialists.</p> <p>Wait list control- Treatment as above, delayed by 3 months.</p>	<p>group</p> <p>T2 – Posttest CBT group/pretest control group</p> <p>T3 – 6 month follow up i.e. 3 months after intervention for CBT group/posttest for wait list control</p>	<p>school mental health clinicians on school campuses, had significantly fewer symptoms of PTSD and depression and fewer reports of psychosocial dysfunction by parents at the 3 month assessment than controls.</p>	<p>type of violence is specific to certain urban environments.</p> <p>Different education systems.</p>	<p>and 10% respectively.</p> <p>Power – not specified.</p>
Stolberg AL et al 1994	<p>Randomised controlled trial.</p> <p>Randomised by school.</p> <p>What study components are effective in helping children cope with divorce?</p> <p>Quality: 1++</p> <p>Indicated</p>	<p>Country: USA</p> <p>Setting: not stated</p> <p>Participants: Age – 3rd-5<sup>th</sup> graders Gender – 45% boys, 55% girls SES – variable Ethnicity – 86% White, 13% African-American, 1% other Sample n=103 Intervention groups: Support group n=23</p>	<p>Children of Divorce Intervention Program (CODIP) – later version</p> <p>Targets children of separated and divorced parents</p> <p>Intervention involved 3 treatment groups who received 14 sessions delivered by specialists.</p> <p>Support group – Support activities only</p>	<p>3 years</p> <p>T1 – Pretest</p> <p>T2 – Posttest</p> <p>T3 – 1 year post intervention</p>	<p>The two skill building conditions yielded durable improvements in adjustive behaviours in the home. The benefits of the support alone condition were experienced most by children who entered the intervention with significant problems, with the greatest reductions in clinical symptomatology at follow-up being found in this group.</p>	<p>B</p> <p>Specific population with variable experiences of divorce.</p> <p>Different health and education systems.</p>	<p>Blinding – teachers and parents blinded to specifics of group allocation. Data collectors blind to allocation.</p> <p>Drop out/attrition: Support group 17% Support and skill building group 9% Support, skill building, transfer and parent training 19% Control group of</p>

	intervention	<p>Support and skill building group n=28 Support, skill building, transfer and parent training n=29</p> <p>Control group of children of divorce n=23</p> <p>Control group of children from intact homes n=26</p>	<p>Support and skill building group – As above plus skill building component</p> <p>Support, skill building, transfer and parent training – As above plus homework to implement learning and parent component</p> <p>Control group of children of divorce – No treatment</p> <p>Control group of children from intact homes – No treatment</p>				<p>children of divorce 25% Control group of children from intact homes 4%</p> <p>Power – not specified.</p> <p>Setting: not stated</p>
<p>Tremblay RE et al 1991 Can disruptive boys be helped to become competent?</p>	<p>Randomised controlled trial. Longitudinal.</p> <p>Randomised by individual.</p> <p>Effects of preventive program administered to disruptive kindergarten boys at risk of conduct problems - 3 year follow up.</p> <p>Quality: 1++</p>	<p>Country: Canada</p> <p>Setting: in classrooms within and without school hours, in clinic, in child's home and in a separate room to classroom</p> <p>Participants: Age at pretest – kindergarten Age at intervention - 7-9 years Gender – boys SES – low</p>	<p>Montreal Longitudinal Study</p> <p>Targets disruptive behaviour</p> <p>Intervention group – Social skills and critical awareness of television for boys, child behaviour skills for parents, delivered by specialists over 2 years. Included visits to home, prosocial peers in some groups. Teacher involvement is not clear.</p> <p>Observation group (placebo) – parent questionnaire</p>	<p>Length of study – 3 years by 1990 and continuing</p> <p>T1 – Pretest</p> <p>T2 – Posttest</p> <p>T3 – 1 year follow up</p> <p>T4 –</p>	<p>Results suggested that the treatment program had some positive effect, but of interest some of the improvements were not evident immediately after the treatment ended, e.g. less fighting and less theft. Possible adverse treatment effects were observed at the end of the treatment – mothers in the treated group were reporting more inattention and disruptive behaviour compared with mothers in the control group,</p>	<p>A</p> <p>Different education system.</p>	<p>Blinding – not mentioned although observation group appears to be unaware of allocation.</p> <p>Drop out/attrition: Intervention group 9%, Observation control 5% and no treatment control 9%.</p> <p>Power – not specified.</p>

	Targeted intervention	<p>Ethnicity – French speaking, White</p> <p>Sample n=172 Intervention group n=46 Observation group (placebo) n=84 Control group n=42</p>	<p>completion and biannual visit to university study observation rooms. Child observation at school, home and university.</p> <p>Control group – No treatment but part of long term follow up</p>	<p>2 year follow up</p> <p>T5 – 3 year follow up</p>	although this difference disappeared after 2 years.		
<p>Tremblay RE et al 1995</p> <p>A bimodal preventive intervention for disruptive kindergarten boys: its impact through mid-adolescence</p>	<p>Randomised controlled trial. Longitudinal.</p> <p>Randomised by individual.</p> <p>Effects of preventive program administered to disruptive kindergarten boys at risk of conduct problems - 6 year follow up.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>Country: Canada</p> <p>Setting: in classrooms within and without school hours, in clinic, in child's home and in a separate room to classroom</p> <p>Participants: Age – 7-9 years Gender – boys SES – low Ethnicity – French speaking, White</p> <p>Sample n=172 Intervention group n=46 Observation group (placebo) n=84 Control group n=42</p>	<p>Montreal Longitudinal Study</p> <p>Targets disruptive behaviour</p> <p>Intervention group – Social skills and critical awareness of television for boys, child behaviour skills for parents, delivered by specialists over 2 years. Included visits to home, prosocial peers in some groups. Teacher involvement is not clear.</p> <p>Observation group (placebo) – parent questionnaire completion and biannual visit to university study observation rooms. Child observation at school, home and university.</p> <p>Control group –</p>	<p>Length of study – 6 years</p> <p>T1 – Pretest</p> <p>T2 – Posttest</p> <p>T3 – 1 year follow up</p> <p>T4 – 2 year follow up</p> <p>T5 – 3 year follow up</p> <p>T6 – 4 year follow</p>	Results indicated that a significantly greater % of treated boys remained in an age-appropriate regular classroom up to the end of primary school and that the treated boys reported significantly less delinquent behaviours at yearly assessments, compared with controls	A  Different education systems.	<p>Blinding – not mentioned although observation group appears to be unaware of allocation.</p> <p>Sample numbers do not agree with Tremblay et al 1991. Slight differences make attrition rates look better. Drop out/attrition: 9%, 5% and 9% respectively in 1991 now reported as 1%, 4%, 4% and 1% not for groups but on specific outcomes.</p> <p>ITT - yes</p> <p>Power – not</p>

			No treatment but part of long term follow up	up  T7 – 5 year follow up  T8- 6 year follow up			specified. No controls for single interventions.
Vitaro, F. and Tremblay, R. E. 1994 Impact of a prevention program on aggressive children's friendships and social adjustment	Randomised controlled trial  Randomised by individual.  To determine if boys who participated in the prevention programme became less aggressive and reported fewer delinquent acts than controls.  To compare the best friends' behavioural characteristics of aggressive boys with controls.  Quality: 1++  Targeted intervention	Country: Canada  Setting: In a classroom outside school hours and in a separate classroom within school hours.  Participants: Age – 8-9 years Gender – boys SES –socially disadvantaged Ethnicity – Caucasian, French speaking  Sample n=104 Intervention group n=46 Control group n=58	Montreal Longitudinal Study Aggression prevention programme  Targeted behaviour-aggression.  Parent training – up to 46 sessions by specialists in participants' homes.  Child training – 1) Social skills and 2) Cognitive problem-solving skills.  In first year Social skills training with prosocial peers for 45 minutes/week during classtime, lunchtime or after school, delivered by specialists.  In second year Cognitive skills training, 10 sessions delivered by specialists.	2 year study 3 year follow up  T1 – Grade 1 pretest  T2 – Grade 2 Posttest  T3- Grade 3 1 year follow up  T4 – Grade 4 2 year follow up  T5 – Grade 5 3 year follow up	Differences in teacher-rated aggressiveness between the two groups increased from one year to the next for the 3-year follow-up. Similarly, the friend's disruptive scores differed increasingly between the two groups over the 3-year period.	A  Different education system.	Blinding – not specified  Drop out/attrition: 24% at T3 27% at T4 28% at T5  Power – not specified.  Participants in special classrooms excluded from analysis.

			Control group – no intervention				
Vitaro F et al 1999 Prevention of school dropout through the reduction of disruptive behaviors and school failure in elementary school	<p>Randomised controlled trial. Longitudinal.</p> <p>Randomised by individual.</p> <p>Effects of preventive program administered to disruptive kindergarten boys at risk of conduct problems with regard to dropping out of school before aged 17.</p> <p>Quality: 1++</p> <p>Targeted intervention</p>	<p>Country: Canada</p> <p>Setting: in classrooms within and without school hours, in clinic, in child's home and in a separate room to classroom</p> <p>Participants: Age at pretest – kindergarten Age at intervention - 7-9 years Gender – boys SES – low Ethnicity – French speaking, White</p> <p>Sample n=172 Intervention group n=46 Observation group (placebo) n=84 Control group n=42</p>	<p>Montreal Longitudinal Study</p> <p>Targets disruptive behaviour</p> <p>Intervention group – Social skills and critical awareness of television for boys, child behaviour skills for parents, delivered by specialists over 2 years. Included visits to home, prosocial peers in some groups. Teacher involvement is not clear.</p> <p>Observation group (placebo) – parent questionnaire completion and biannual visit to university study observation rooms. Child observation at school, home and university.</p> <p>Control group – No treatment but part of long term follow up</p>	<p>Length of study – 6 years</p> <p>T1 – Pretest</p> <p>T2 – Posttest</p> <p>T3 – 1 year follow up</p> <p>T4 – 2 year follow up</p> <p>T5 – 3 year follow up</p> <p>T6 – 4 year follow up</p> <p>T7 – 5 year follow up</p> <p>T8 - 6 year follow up</p> <p>T9 – Collection of data from School</p>	The results showed that the program had an indirect effect on later school drop out problems through its impact on grade retention/special classroom placement.	A  Different education systems.	<p>Blinding –of teachers mentioned at T3 and T4.</p> <p>Drop out/attrition rate: 17% intervention group 15% attention control group 5% no intervention control group</p> <p>Power – not specified.</p>

				Boards and Ministry of Education			
<p>Waschbusch DA et al 2005</p> <p>The Behavior Education Support and Treatment school intervention program: pilot project data examining schoolwide, targeted-school and targeted-home approaches.</p> <p>Unable to locate further studies.</p>	<p>Randomised controlled trial (pilot).</p> <p>Randomised by school to intervention or control, then randomised to intervention.</p> <p>Evaluation of the effects of three approaches to behavioural, school-based interventions. First approach: universal and targeted model addressing school environment</p> <p>Second approach: targeted model addressing school environment</p> <p>Third approach: targeted model addressing both home and school environment</p> <p>Quality: 1++ (note small sample size)</p> <p>Targeted or</p>	<p>Country: Canada Northern Nova Scotia</p> <p>Setting: in school classroom or another room within school hours</p> <p>Participants: Age – 5 to 12 years Gender – 53.5% boys, 46.5% girls SES – 33 to 38 on Four-factor index of SES (Hollingshead, 1975) Ethnicity – not specified, mostly Caucasian</p> <p>n=1115 children from 4 schools</p>	<p>Behavior Education Support and Treatment (BEST) also incorporating Community Oriented Parent Education (COPE) course</p> <p>Targeting disruptive behaviours</p> <p>Intervention aspects common to each group (school): Application of rules that were tracked throughout the day and rewarded accordingly. Delivery of COPE to all parents. Standard method of feedback on negative behaviours. Procedures to adapt intervention to individual needs.</p> <p>Schoolwide intervention: Universal application, to whole school, of intervention described above, plus extras for children who did not respond to it.</p> <p>Targeted-school intervention: Intervention as described above, to individual child plus extra support.</p>	<p>9 months</p> <p>Pretest Posttest</p>	<p>Results showed that the behaviour of disruptive children in all schools improved during the course of the year, with some evidence that interventions provided complementary effects. Part of the focus of this intervention was to explore the preference of parents for treatment modes. Take up rate of targeted interventions was much higher where the intervention was given at school rather than at home. Similarly relatively few parents took advantage of the parenting programme that was offered as part of the intervention, despite the fact that it was free, offered at multiple times, included child care and was based on well thought of programmes.</p>	<p>A</p> <p>Only one group per intervention type limits generalisability</p> <p>Compliance of teachers with protocol not measured.</p> <p>Different education system.</p>	<p>School sample size is small.</p> <p>Take up of parenting skills training was low.</p> <p>Drop out rate for individuals 6% or less.</p> <p>Number of teachers filling in assessments not specified, just says 'low'.</p> <p>No power calculation</p>

	indicated intervention		<p>Targeted-home intervention: Intervention as described above to child's class and skills training for parents.</p> <p>Comparison-control: No treatment</p> <p>2 extra members of staff employed by BEST to implement the programme in school but who delivered the training to them, teachers and parents is not specified</p>				
<p>Webster-Stratton C et al 2001</p> <p>Social skills and problem-solving training for children with early-onset conduct problems-who benefits?</p>	<p>Randomised controlled trial.</p> <p>Randomised by individual.</p> <p>An examination of the effects of the cognitive-behavioural, social skills, problem solving and anger management child training curriculum in terms of its long-term effectiveness and ability to generalize across settings.</p> <p>Quality: 1++</p>	<p>Country: USA</p> <p>Setting: clinic</p> <p>Participants: Age – 4-8 years Gender – 79-82% boys SES – 2.4-2.6 in Hollingshead Social Class Category i.e. professionals Ethnicity – 85-88% Caucasian</p> <p>Sample n=51 children</p> <p>Group sample size not specified.</p>	<p>Dinosaur School (CT)</p> <p>Targets oppositional defiant disorder behaviours</p> <p>Group 1: Child training- Child training involved delivering the Dinosaur School programme. Weekly 2-hour sessions for 18-19 weeks delivered by two therapists at the clinic. It addresses social skills, conflict resolution, loneliness, negative attributions, empathy, communication, co-operation and compliance with parent and teacher requests.</p>	Included 1-year follow-up.	Combined results from different projects between 1991 to 2001.	<p>B</p> <p>Suitable for specific population.</p> <p>Different educational and health systems.</p>	<p>Data collectors blinded.</p> <p>Drop out/attrition: 2%</p> <p>Power – combined data provides sufficient power according to authors.</p> <p>No control group for comparison at 1-year follow-up.</p> <p>SES higher so reduces generalisability for lower SES families.</p> <p>Few ethnic minorities</p>



	Indicated intervention for families requesting or referred for treatment at a parenting clinic.		Group 2: Waiting list control group (no treatment)				in sample.
Webster-Stratton C et al 2003 Treating conduct problems and strengthening social and emotional competence in young children: the Dina Dinosaur Treatment Program.	<p>Randomised controlled trial.</p> <p>Trials 1 and 2 randomised by family.</p> <p>A review of two randomised trials on the Dina Dinosaur Treatment Programme</p> <p>Quality: 1+/- As this paper is a descriptive review it may be that some quality criteria is not included.</p> <p>Indicated intervention for families requesting or referred for treatment at a parenting clinic.</p>	<p>Country:</p> <p>Setting: clinic</p> <p>Participants: TRIAL 1 Age – 4-8 years Gender – 80% boys, 20% girls SES – not specified Ethnicity – 86% Caucasian</p> <p>Sample n=97 families</p> <p>TRIAL 2 Age – 4-8 years Gender – not specified SES – not specified Ethnicity – 85% Caucasian</p> <p>Sample n=159 families</p>	<p>Dinosaur School (CT) Incredible Years (PT and TT)</p> <p>Targets oppositional defiant disorder behaviours</p> <p>TRIAL 1 – 3 groups 1) Child training 2) Parent training 3) Wait list control</p> <p>TRIAL 2 - 4 groups 1) Child training 2) Child and teacher training 3) Wait list control 4) Parent training not reported in this paper although part of this study.</p> <p>Child training involved delivering the Dinosaur School programme. Weekly 2-hour sessions for 18-19 weeks delivered by two therapists at the clinic. It addresses social skills, conflict resolution, loneliness, negative attributions, empathy, communication, co-operation and compliance</p>	<p>TRIALS 1 and 2 6 month intervention 1 and 2 year follow-up</p> <p>Baseline assessment. 2months, 1 year and 2 years post intervention</p>	<p>This paper describes the results of two RCTS of the Dina Dinosaur Treatment Program, which included a parent training intervention (PT), a child training intervention (CT) and a wait list control (WLC). The results show that the PT approach was superior to the CT approach in terms of child behaviour (as reported by parents), parenting behaviours (as observed by independent raters), and consumer satisfaction. Intervention involving CT was superior to PT in terms of child social problem-solving and conflict-management skills with peers.</p>	<p>B</p> <p>Families referred for treatment.</p> <p>Differences between education systems.</p>	<p>Blinding not appropriate</p> <p>Drop out/attrition: not specified</p> <p>Power – Trial 1 refers to limited power due to teacher reported levels of behaviour at baseline were not clinically significant</p> <p>Gender and SES not always specified in this paper but reported elsewhere</p>

			<p>with parent and teacher requests.</p> <p>Parent training involved weekly 2-hour sessions for 22-24 weeks delivered by therapists at the clinic. It is a video based course on parenting and interpersonal skills.</p> <p>Teacher training involved the Incredible Years Programme delivered over 4 days of group training sequenced through the school year. Delivered by therapists at the clinic, it covers effective classroom strategies to manage misbehaviour, promote positive relationships and strengthen social skills. Training focuses on strategies to help aggressive/rejected/difficult children.</p>				
<p>Webster-Stratton C et al 2004</p> <p>Treating children with early-onset conduct problems: intervention outcomes for parent, child and teacher training.</p>	<p>Randomised controlled trial. Cohort study.</p> <p>Randomised by family.</p> <p>Hypothesis: more effective treatment</p>	<p>Country: USA</p> <p>Setting: child parent and teacher training takes place in a clinic setting, however the teacher then returns and applies it in the</p>	<p>Dinosaur School (CT)</p> <p>Incredible Years (TT)</p> <p>Targets oppositional defiant disorder behaviours</p> <p>Group 1: Parent training alone</p> <p>Group 2:</p>	<p>6 months intervention</p> <p>1-year follow-up</p> <p>Baseline assessment. Posttest and 1 year later</p>	<p>Following the 6-month intervention, all treatments resulted in significantly fewer conduct problems with mothers, teachers, and peers, compared with controls. Children's negative behaviour with fathers was lower in the</p>	<p>B</p> <p>Population referred for treatment.</p> <p>SES higher so reduces generalisability</p>	<p>Blinding of observers to condition, otherwise not possible to blind.</p> <p>Drop out/attrition rate: Families 5%</p>

	<p>models would include training for teachers in effective classroom management strategies as well as methods to promote teacher-parent networks.</p> <p>Quality: 1++</p> <p>Indicated intervention for families requesting or referred for treatment at a parenting clinic.</p>	<p>classroom</p> <p>Participants: Age – 4-8 years old, 26% preschool, average age 5years 9months Gender – 90% boys, 10% girls SES – 0.94-2.72 in Hollingshead Social Class Category i.e. professionals Ethnicity – 71-84% Euro-American across groups</p> <p>Sample: n=159 families in 3 cohorts</p> <p>Group sample size not specified.</p>	<p>Child training alone Group 3: Parent training plus teacher training (includes collaboration between parents and teachers) Group 4: Child training plus teacher training Group 5: Parent and child training plus teacher training Group 6: Waiting list control group (no treatment)</p> <p>Child training involved delivering the Dinosaur School programme. Weekly 2-hour sessions for 18-19 weeks delivered by two therapists at the clinic. It addresses social skills, conflict resolution, loneliness, negative attributions, empathy, communication, co-operation and compliance with parent and teacher requests.</p> <p>Parent training involved weekly 2-hour sessions for 22-24 weeks delivered by therapists at the clinic. It is a video based course on parenting and interpersonal</p>		<p>interventions groups that included parent training, compared with controls. Children showed more prosocial skills with peers in the intervention groups that included child training, compared with controls. Intervention groups that included parent training resulted in less negative and more positive parenting for mothers and less negative parenting for fathers, compared with controls. Mothers and teachers were also less negative compared with controls when children received training. Adding teacher training to parent training or child training improved treatment outcomes in terms of teacher behaviour management in the classroom and in reports of behaviour problems.</p>	<p>for lower SES families.</p> <p>Few ethnic minorities in sample.</p> <p>USA educational system not compatible with UK</p>	<p>Power – not specified.</p> <p>Participants were of a higher social class than most other studies in this review.</p>
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			skills.  Teacher training involved the Incredible Years Programme delivered over 4 days of group training sequenced through the school year. Delivered by therapists at the clinic, it covers effective classroom strategies to manage misbehaviour, promote positive relationships and strengthen social skills. Training focuses on strategies to help aggressive/rejected/difficult children.				
Weiss B et al 2003 Efficacy of the RECAP intervention program for children with concurrent internalising and externalising problems	Randomised controlled trial.  Individuals randomised across classes by headteacher (blind to allocation of classes).  Evaluation of the efficacy of the RECAP programme  Quality: 1++  Targeted intervention for	Country: USA  Setting: in the classroom and a separate room at school  Participants: Age – 4 <sup>th</sup> graders Gender – 63% boys, 27% girls SES – not specified, low income and high crime neighbourhoods Ethnicity – 56% African-American, 38% Caucasian	Reaching Educators, Children and Parents (RECAP)  Behaviour resulting from internalising and externalising problems  Intervention group: Skills training programme for intervention children, individually, in small groups and in classes  Skills training programme administered to teachers and parents  Control group:	2 years  9 month intervention  Baseline at end of Grade 3 and near beginning of treatment. Mid-treatment twice during school year. Posttest 1 month before end of school year. Follow-up 1	Results from the intervention show limited effect, and even where statistically significant improvements in outcome measures were noted, children often still lay outside the normal range.	A  Different education system.	Blinding and power not specified.  Drop out rate 4% overall.  Analysed to compare groups not individuals.

	children experiencing internalising and externalising problems.	Sample: n=93 families Intervention group n=62 Control group n=31	No treatment  All training delivered by social worker and psychiatric nurses	year later. NB All assessments were not repeated at each time.			
Weisz JR et al 1997 Brief treatment of mild-to-moderate child depression using primary and secondary control enhancement training	Randomised controlled trial.  Randomised by individual.  To evaluate the effectiveness of Primary and Secondary Control Enhancement Training (PASCET)  Quality: 1+  Targeted intervention	Country: USA  Setting: in a separate room to the classroom  Participants: Age – mean 9.6 years Gender – 54% boys, 46% girls SES – not specified Ethnicity – 62.5% Caucasian, 37.5% ethnic minority (primarily African-American)  Sample n=48 Intervention group n=16 Control group n=32	Primary and Secondary Control Enhancement Training (PASCET)  Targets childhood depression  Intervention group – PASCET, a cognitive-behavioural programme, delivered by specialists, in 8, 50-minute sessions.  Control group – No treatment	1 year  T1 – Pretest  T2 – Posttest  T3 – 9 month follow up	Children receiving the 8 session PASCET programme showing significantly reduced levels of depressive symptoms at immediate post test compared to controls, on both measures of depressive symptomatology. This finding held at the 9 month follow up and comparisons showed that treated children were markedly more likely than control children to move into the normal range on depression measures.	A  Different education systems.	Blinding – of data collectors.  Drop out/attrition: 39.6% at 9 month follow up.  Power – not specified.

## Appendix H – Conversion table for English key stages and U S grade equivalents

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Age	England	Year	USA	Grade
0-4	Pre-School	-		-
4-5		-	Pre Kindergarten	-
5-8	Primary School	1	Kindergarten	-
8-7		2	Elementary School	1
7-8	Junior School	3		2
8-9		4		3
9-10		5		4
10-11		6		5
11-12	Secondary School	7	Middle School	6
12-13		8		7
13-14		9		8
14-15	Secondary School - GCSE	10	High School	9
15-16		11		10
16-17	6th Form College	-		11
17-18		-		12

From: Jones L, James M, Jefferson T, Lushey C, Morleo M, Stokes E, Sumnal H, Witty K,& Bellis M (2007) A review of the effectiveness and cost-effectiveness of interventions delivered in primary and secondary schools to prevent and/or reduce alcohol use by young people under 18 years old. London: NICE

	First author	Year
1	Atkins MS et al	2006
2	<b>August</b> August GJ et al August GJ et al August GJ et al August GJ et al	2001 2002 2003a 2003b
3	Barkley RA et al	2000
4	Barrera M et al	2002
5	Bernstein GA et al	2005
6	Bloomquist ML et al	1991
7	Braswell L et al	1997
8	<b>Conduct Problems Prevention Research Group (CPPRG)</b> CPPRG CPPRG CPPRG	1999 2002 2004
9	<b>Dadds</b> Dadds MR et al Dadds MR et al	1997 1999
10	Desbiens N and Royer E	2003
11	Fraser MW et al	2004
12	Hudley C and Graham S	1993
13	Hudley C and Friday J	1996
14	Jaycox JH et al	1994
15	Kam C-M et al	2004
16	King CA and Kirschenbaum DS	1990
17	King NJ et al	1998
18	Larkin R and Thyer BA	1999
19	Liddle B and Spence SH	1990
20	<b>Lochman</b> Lochman JE Lochman JE et al Lochman JE and Wells KC Lochman JE and Wells KC Lochman JE and Wells KC	1992 1993 2002 2003 2004
21	Metropolitan Area Child Study Research Group	2002
22	Miranda A et al	2002
23	Mize J and Ladd GW	1990
24	O'Donnell J et al	1995
25	Prinz RJ et al	1994
26	Stein BD and Jaycox JH	2003
27	Stolberg AL and Mahler J	1994
28	<b>Vitaro and Tremblay</b> Vitaro F Tremblay RE et al Vitaro F and Tremblay RE Tremblay RE et al	1990 1991 1994 1995
29	Waschbusch DA et al	2005
30	<b>Webster-Stratton</b> Webster-Stratton C et al Webster-Stratton C and Reid MJ Webster-Stratton C and Reid MJ Reid MJ et al	2001 2003 2004 2003
31	Weiss B et al	2003
32	Weisz JR et al	1997

Atkins MS et al 2006

August GL et al 2001  
August GJ et al 2002  
August GJ et al 2003a  
August GJ et al 2003b  
Barkley  
Barrera M et al 2002  
Bernstein  
Bloomquist  
Braswell, L et al 1997

Conduct Problems Prevention Research Group 1999  
Conduct Problems Prevention Research Group 2002  
Conduct Problems Prevention Research Group 2004

[Dadds MR et al 1997](#)  
[Dadds MR et al 1999](#)  
Desbiens N et al 2003  
Fraser MW et al 2004  
Hudley 1993  
Hudley 1996  
Jaycox LH et al 1994  
Kam C-M et al 2004  
King C et al 1990  
King NJ et al 1998  
Larkin  
Liddle

Lochman JE et al 1993a  
Lochman JE et al 1993b  
Lochman JE et al 2002  
Lochman, JE et al 2003  
Lochman JE et al 2004

Metropolitan Area Child Study Research Group 2002  
Miranda A et al 2002  
Mize J et al 1990  
O'Donnell J et al 1995  
Prinz RJ et al 1994  
Stein 2003  
Stolberg AL et al 1994

Vitaro F	1990
Vitaro F et al 1991	
Vitaro, F. and Tremblay, R. E. 1994	
Tremblay RE et al	1995
Waschbusch DA et al 2005	

[Webster-Stratton C et al 2001](#)  
[Webster-Stratton C et al 2003](#)  
[Webster-Stratton C et al 2004](#)  
[Reid MJ et al 2003](#)  
Weiss B et al 2003  
Weisz JR et al 1997

y=yes, n=no, ny=no data extracted but results summarised, yn=data extracted but not confident of use/quality

Author	data extracted	Comments	Title
Nelson JR et al 2005	y		Effects of a prereading intervention on the literacy and social skills of children
Miranda A et al 2002	y		Effectiveness of a school-based multicomponent program for the treatment of children with ADHD
Waschbusch DA et al 2005	y		The Behavior Education Support and Treatment school intervention program: pilot project data examining schoolwide, targeted-school and targeted-home approaches
Weiss B et al 2003	y		Efficacy of the RECAP intervention program for children with concurrent internalising and externalising problems
King NJ et al 1998	y		Cognitive-behavioral treatment of school-refusing children: a controlled evaluation
Metropolitan Area Child Study Research Group 2002	y		A cognitive-ecological approach to preventing aggression in urban settings: initial outcome for high-risk children
Desbiens N et al 2003	y		Peer groups and behaviour problems
Fraser MW et al 2004	y		Conduct problems and peer rejection in childhood: a randomised trial of the Making Choices and Strong Families Programs
Kam C-M et al 2004	ny	no data extracted but I've summarised results from r	Sustained effects of the PATHS curriculum on the social and psychological adjustment of children in special education
Sage R 2001	yn	not sure data useful, don't know what ns re from pap	Supporting primary and secondary school pupils with communication and behaviour problems
Atkins MS et al 2006	n	not analysed as a comparison of intervention and co	School-based mental health services for children living in high poverty urban communities
O'Donnell J et al 1995	y		Preventing school failure, drug use and delinquency among low-income children: long-term intervention in elementary schools
Braswell, L et al 1997	y	baseline & 3 post tests	School-based secondary prevention for children with disruptive behavior: initial outcomes
Dadds MR et al 1997	y	post int and 6 month data	Prevention and early intervention for anxiety disorders: a controlled trial
Dadds MR et al 1999	y	1 & 2 year follow up data	Early intervention and prevention of anxiety disorders in children: results at 2-year follow-up
Webster-Stratton C et al 2001	n	subgroup of main study	Social skills and problem-solving training for children with early-onset conduct problems-who benefits?
Webster-Stratton C et al 2003	n	no usable data	Treating conduct problems and strengthening social and emotional competence in young children: the Dina Dinosaur Treatment Program.
Webster-Stratton C et al 2004	y	pre/post	Treating children with early-onset conduct problems: intervention outcomes for parent, child and teacher training.
Reid MJ et al 2003	n	2 year follow up. No usable data	Follow-up of children who received the Incredible Years intervention for oppositional-defiant disorder: maintenance and prediction of 2-year outcome
Hudley 1993	y		
Hudley 1996	n	no usable data	
Jaycox LH et al 1994	y		Prevention of depressive symptoms in school children
Catron T et al 1994	n	No data presented	The Vanderbilt school-based counselling program: an interagency, primary-care model of mental health services
Stein 2003	y	mean diff & ci adjusted for baseline	
Larkin	y		
Liddle	y		
Mize J et al 1990	y		A cognitive-social learning approach to social skills learning with low-status pre-school children
Weisz JR et al 1997	y		Brief treatment of mild-to-moderate child depression using primary and secondary control enhancement training
Stolberg AL et al 1994	y		Enhancing Treatment Gains in a School-Based Intervention for Children of Divorce Through Skill Training, Parental Involvement and Transfer Procedures
Barkley RA et al 2000	y		Multi-method psycho-educational intervention for preschool children with disruptive behavior: preliminary results at post-treatment
Bernstein	y		
Prinz RJ et al 1994	y		An evaluation of peer coping-skills training for childhood aggression
Aber JL et al 1994	n	No change data presented in paper	The evaluation of the Resolving Conflict Creatively Program: an overview
Barrera M et al 2002	n	No change data presented. Effect sizes, F and p val	Early elementary school intervention to reduce conduct problems: a randomized trial with Hispanic and non-Hispanic children
Bloomquist ML et al 1991	y		Effects of a school-based cognitive-behavioral intervention for ADHD children
King C et al 1990	y		An experimental evaluation of a school-based program for children at risk: Wisconsin Early Intervention
Lochman JE et al 2002	y		The Coping Power Program at the middle-school transition: universal and indicated prevention effects
Lochman, JE et al 2003	y		Effectiveness of the Coping Power Program and of classroom intervention with aggressive children: outcomes at a 1-year follow-up
Lochman JE et al 2004	y		The Coping Power Program for preadolescent aggressive boys and their parents: outcome effects at the 1-year follow-up
Lochman JE et al 1993b	y		Effectiveness of a social relations intervention program for aggressive and nonaggressive, rejected children
Lochman JE et al 1993a	y		Cognitive-behavioral intervention with aggressive boys: three-year follow-up and preventive effects
Conduct Problems Prevention Research Group 2004	n	?is it post data or follow up?	The effects of the FAST TRACK program on serious problem outcomes at the end of elementary school
Conduct Problems Prevention Research Group 1999	y	data is OR	Initial impact of the FAST TRACK prevention trial for conduct problems: 1 the high risk sample
Conduct Problems Prevention Research Group 2002	y		Evaluation of the first 3 years of the FAST TRACK prevention trial with children at high risk for adolescent conduct problems
August GL et al 2001	y		An integrated components prevention for aggressive elementary school children: the early risers program
August GJ et al 2002	n	reg	The Early Risers Longitudinal Prevention Trial: examination of a 3-year outcomes in aggressive children with ITT and as-intended analyses
August GJ et al 2003a	n	reg (some means/sds could be extracted? From text	Parceling component effects of a multifaceted prevention program for disruptive elementary school children
August GJ et al 2003b	n	reg	Four years of the Early Risers early-age – targeted preventive intervention: effects on aggressive children's peer relations
Tremblay RE et al 1995	n	no usable data	A bimodal preventive intervention for disruptive kindergarten boys: its impact through mid-adolescence
Vitaro, F. and Tremblay, R. E. 1994	n	no usable data	Impact of a prevention program on aggressive children's friendships and social adjustment
Vitaro F et al 1999	n	regression	Prevention of school dropout through the reduction of disruptive behaviors and school failure in elementary school
Tremblay RE et al 1991	y		Can disruptive boys be helped to become competent?



Outcome Measure	Intervention group						Control Group						p value		
	Baseline sd	N	mean	End sd	N	Change sd	N	Baseline sd	N	mean	End sd	N		Change sd	N
Stroop															
Word Reading	60.5	17.6	29	64.6	20.5	29		64.5	15.7	21	60.3	18.2	21		ns
Colour Naming	40.6	12.8	29	46.4	7.8	29		44.9	9.3	21	45.9	11.7	21		ns
Colour-word naming	22.6	9.6	29	28.1	8	29		25.6	8.3	21	25.9	11.9	21		ns
MFF															
Errors	12.3	7.5	29	8.5	4.5	29		12.6	11.7	21	8	4.1	21		ns
Latency	13.6	7.1	29	12.6	6.8	29		14.4	9.8	21	15.2	7.9	21		ns
Rey-Osterrieth															
Copy	24.8	6.8	29	23.3	8.3	29		25.1	8.2	21	22.7	10.1	21		ns
Memory	14.1	5.5	29	14.9	7.8	29		15.3	7.9	21	15.9	7.9	21		ns
WISC-R															
Digit Span	8.4	2.6	29	8.6	1.9	29		8.7	2.5	21	8.6	1.8	21		ns
Arithmetic	8.2	3.2	29	9.7	1.7	29		9.7	2.1	21	9.4	2.8	21		ns
Coding	33.3	9.1	29	39.8	11.7	29		32.4	9.4	21	37.4	11.9	21		ns
CRRTF															
Number	1.9	2	29	1.3	1.9	29		2	3.2	21	1.1	1.4	21		ns
Diamond	2.9	3.2	29	2.6	2.9	29		2.2	2.9	21	1.2	1.3	21		<0.05
ITPA															
Visual closure	32.1	6.5	29	34.9	5.9	29		31.4	10.6	21	34.4	8.4	21		ns
Parent Behavior Ratings															
DSM-IV	17.6	4.5	29	14.5	4.9	29		15.1	3.4	21	14.1	4.8	21		ns
Inattention	17.5	4.5	29	12.1	5.6	29		18.8	5.7	21	16.5	6.4	21		<0.05
Hyperactivity															
EPC															
School problems	14.6	5.3	29	13.2	5	29		14	5.6	21	12.6	5.9	21		ns
Antisocial Behaviour	15.3	6.9	29	12.9	6.3	29		17.4	8.5	21	15.4	9.7	21		ns
Internalization	8.6	4.4	29	7.1	3.6	29		7.7	4.8	21	6	4.1	21		ns
Psychopathological disorders	8.5	5.1	29	6.5	4.4	29		8.9	3.5	21	5.8	4	21		ns
Anxiety	7.4	3.8	29	6	2.7	29		9.7	3.6	21	7.3	2.9	21		ns
Somatic problems	1.9	2.5	29	1.2	1.7	29		3	2.7	21	1.7	1.3	21		ns
Socail adjustment	18.8	6.9	29	20.7	5	29		20.3	4.2	21	20.2	5.6	21		ns
Teacher Behavior Ratings															
DSM-IV															
Inattention	19.8	5.1	29	14.3	6.3	29		18.2	4.8	21	17.3	4.7	21		ns
Hyperactivity	21.2	4	29	13.4	5.4	29		18.3	4.6	21	18	4.7	21		<0.001
Conners	23.2	4.2	29	15.5	5.8	29		21.1	3.4	21	19	4.9	21		<0.05
IOWA															
Hyperactivity	12.4	1.9	29	8.4	3.1	29		10.9	1.7	21	10.1	2.9	21		<0.05
Aggression	7.9	4.8	29	7	11.3	29		7	4.1	21	6.2	4.4	21		ns
School Problem Inventory															
Learning problems	29.2	9.3	29	23.5	10.8	29		26.1	12.3	21	25.6	11.5	21		ns
Antisocial behaviour	28.9	10.1	29	22.2	9.8	29		27.1	9.5	21	25.4	9.7	21		ns
Inhibition	10.6	5.7	29	8.6	6.7	29		9.6	7.5	21	11.8	6.5	21		ns
Anxiety/shyness	16.6	7.5	29	11.9	7.2	29		11.3	5.6	21	8.7	6.7	21		ns
School maladjustment	5.9	3.4	29	4.4	3.3	29		4.3	2.8	21	5	3.7	21		ns
Self control	174	27.4	29	149.5	27.3	29		171.4	24.1	21	168.6	22.3	21		<0.05
Scholastic Achievement Measures															
Mathematics	4.1	1.9	29	5.4	1.6	29		4.7	1.2	21	4.8	1	21		ns
Sciences	4.2	1.7	29	5.4	1.2	29		5.5	0.9	21	4.7	1.3	21		ns
Languages	4.9	1.4	29	5.6	0.8	29		5.2	0.8	21	4.5	1.4	21		<0.001
Classroom Behaviour Observations															
Off task	29.7	36.6	29	11.5	12	29		21.1	18.3	21					
Disobedient	11.6	13.9	29	7	2.8	29		9.4	12.1	21					
Restless	32.5	45.3	29	10.5	12	29		16	18	21					
Disturbing	25.5	28.5	29	9	7.1	29		14.2	20.2	21					
Standing up	19.6	28.9	29	8	5.6	29		11	14.8	21					
Aggressive	4.3	6.2	29	0	0	29		1.8	3.4	21					
Knowledge of Management Procedures															
Knowledge of ADHD	10.5	1.3	29	11.2	1.3	29		11.1	1.2	21	11	0.7	21		ns
Contingency management techniques	9	2.2	29	11.3	3	29		10.1	1.1	21	10.8	0.8	21		ns
Cognitive behavioral techniques	5.1	1.3	29	6.5	0.7	29		4.7	1.5	21	4	1.8	21		<0.05
Instructional aspects	8.9	1.7	29	10.3	1.4	29		10	1.6	21	9.8	1.4	21		ns

Note t and df for significant differences between and within groups are also given in Table 1

First author  
Date  
Title

Waschbusch DA et al 2005

The Behavior Education Support and Treatment school intervention program: pilot project data examining schoolwide, targeted-school and targeted-home approaches

Outcome Measure	Comparison School									Targeted School								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<i>Behavior Ratings</i>																		
Hyperactive-impulsive	3.19	0.46	29	2.96	0.7	29				3.09	0.33	35	2.77	0.65	35			
Inattention	3.19	0.37	28	2.87	0.65	28				3.05	0.37	33	2.66	0.7	33			
Oppositional	2.72	0.31	16	2.48	0.65	16				2.56	0.21	25	2.33	0.65	25			
<i>Impairment Ratings</i>																		
Peer impairment	1.46	0.9	26	1.08	1.13	26				1.33	0.6	45	1.11	0.86	45			
Academic impairment	2.6	0.82	25	1.8	1.26	25				2.4	0.54	42	2.26	0.94	42			
Class behaviour impairment	2.62	0.87	13	2.54	1.2	13				2.24	0.62	21	1.19	1.03	21			
<i>Relationship ratings</i>																		
Conflict with teacher	35.55	6.13	22	30.27	12.1	22				31.47	4.62	34	28.06	7.72	34			
Closeness with teacher	27.85	4.67	39	32.82	7.43	39				30.6	2.86	45	33.53	6.49	45			
Dependency on teacher	13.52	1.68	44	11.84	3.58	44				13.54	1.72	84	11.93	2.96	84			

First author  
Date  
Title

Waschbusch DA et al 2005

The Behavior Education Support and Treatment school intervention program: pilot project data examining schoolwide, targeted-school and targeted-home approaches

Outcome Measure	Targeted Home									Targeted Home								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<i>Behavior Ratings</i>																		
Hyperactive-impulsive	3.14	0.39	43	2.9	0.51	43				2.98	0.35	19	2.79	0.49	19			
Inattention	3.24	0.39	41	2.91	0.57	41				3.09	0.29	19	2.76	0.56	19			
Oppositional	2.83	0.42	37	2.65	0.68	37				2.65	0.25	13	2.01	0.91	13			
<i>Impairment Ratings</i>																		
Peer impairment	1.64	0.95	70	1.33	1.16	70				1.58	0.79	33	0.7	0.98	33			
Academic impairment	2.82	0.85	60	2	1.26	60				2.52	0.73	23	1.96	1.33	23			
Class behaviour impairment	2.56	0.8	27	2.22	1.19	27				2.4	0.74	15	0.93	1.44	15			
<i>Relationship ratings</i>																		
Conflict with teacher	34.83	5.45	41	32.37	9.61	41				34.87	6.64	23	29.83	8.48	23			
Closeness with teacher	27.29	4.36	58	33.79	6.61	58				27.95	4.27	19	33.53	5.95	19			
Dependency on teacher	13.08	1.68	51	11.43	2.23	51				13.41	1.62	34	10.91	3.49	34			

First author

Weiss B et al 2003

Date

Title

Efficacy of the RECAP intervention program for children with concurrent internalising and externalising problems

Outcome Measure	RECAP condition									Control Group								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Parent internalising	12.8	10	62	9	10.4	62				13.6	8	31	9.4	9.6	31			
Parent externalising	19.6	9.9	62	15	10.2	62				17.9	8.1	31	13.7	8.5	31			
Teacher internalising	11.1	11.1	62	12.5	12.1	62				9.2	6.9	31	11.1	7.6	31			
Teacher externalising	18.1	9.4	62	23.1	11.5	62				19.6	8.9	31	23.9	12.2	31			
self report internalising	25.3	11.5	62	21.2	12.3	62				24.4	9.7	31	25.7	11	31			
self report externalising	20.1	10.8	62	18.3	10.8	62				20.2	10.9	31	21.7	9.5	31			
Peer internalising	1.4	10.1	62	0.4	11.5	62				1.2	7.7	31	0.3	8.1	31			
Peer externalising	2.3	10.1	62	1	11.5	62				0	7.6	31	4	6.8	31			
Negative sociometric	0.7	1.2	62	0.3	1.3	62				0.2	0.8	31	0.6	1.2	31			
Positive sociometric	-0.2	0.9	62	-0.1	1	62				-0.1	0.9	31	-0.1	0.9	31			
Grade point average	80.8	8.3	62	82	7.6	62				80.7	8.7	31	84.8	6.8	31			
Days absent	1.3	1.7	62	1.4	2.5	62				1.7	2.2	31	1.9	2.3	31			

end = post treatment

follow up data is also presented for some outcomes

First author King NJ et al 1998  
Date  
Title Cognitive-behavioral treatment of school-refusing children: a controlled evaluation

Outcome Measure	cognitive behaviour treatment									Control Group								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<i>School attendance</i>																		
% days present	61.47	38.48	17	93.53	17.57	17				40	40.5	17	55.59	41.72	17			
<i>Child self report</i>																		
FT	62.76	25.47	17	18.88	22.46	17				53.65	27.57	17	46.94	34.8	17			
FSSC-II	142.29	30.56	17	123.71	25.98	17				138.06	26.22	17	136.76	34.94	17			
R-CMAS	59.94	11.79	17	45.88	8.51	17				53.12	10.14	17	50.35	10.39	17			
CDI	18.76	10.37	17	8.18	9.59	17				13.59	7.9	17	10	7.43	17			
SEQSS	39.35	9.47	17	51.94	6.28	17				41.69	11.27	17	46.31	9.98	17			
<i>Parent report</i>																		
<i>CBCL</i>																		
Internalising	73.82	6.47	17	59.12	9.05	17				71.25	10.3	17	65.37	11.81	17			
Externalising	59.47	9.01	17	54.71	6.96	17				55.59	11.1	17	55.38	10.58	17			
<i>Teacher report</i>																		
<i>TRF</i>																		
Internalising	63.69	9.34	16	52.75	9.49	16				63.16	9.47	12	55.5	6.71	12			
Externalising	55.19	8.88	16	49.56	7.51	16				53.25	7.58	12	49.5	8.78	12			
<i>Clinician rating</i>																		
GAF	65.24	7.81	17	79.47	7.7	17				63.53	6.51	17	66.76	9.22	17			

T and df are given for pre-post changes if needed for MA  
follow up info is given for treatment group but not control

First author

Date

Title

Metropolitan Area Child Study Research Group 2002

A cognitive-ecological approach to preventing aggression in urban settings: initial outcome for high-risk children

Outcome Measure	Control									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>LEVEL A</b>																		
<b>Aggression</b>																		
<b>Early intervention</b>																		
Chicago	1.88	0.73	132	1.73	0.83	132	-0.15		132	2.2	0.76	120	1.95	0.96	120	-0.25		120
Aurora	1.72	0.71	122	1.81	1.03	122	-0.02		122	1.86	0.72	141	2.15	0.88	141	0.19		141
Total	1.78	0.91	254	1.76	0	254	-0.02		254	2.02	0.96	261	2.06	1.02	261	0.04		261
<b>Aggression</b>																		
<b>Late intervention</b>																		
Chicago	2.23	0.75	51	1.88	0.89	51	-0.35		51	2.22	0.74	52	2.19	0.86	52	-0.3		52
Aurora	2.36	0.82	47	1.85	0.99	47	-0.51		47	2.41	0.8	70	2.34	1.09	70	-0.07		70
Total	2.29	0.81	98	1.86	0.93	98	-0.43		98	2.33	0.82	122	2.27	1.01	122	-0.06		122
<b>Aggression</b>																		
<b>Early &amp; late intervention</b>																		
Chicago	1.97	0.65	47	1.38	0.92	47	-0.59		47	2.13	0.89	50	2.12	0.97	50	-0.01		50
Aurora	1.49	0.66	27	1.72	1.13	27	0.23		27	1.69	0.87	31	1.68	1.16	31	-0.01		31
Total	1.79	0.7	74	1.5	1	74	-0.29		74	1.97	0.9	81	1.94	1.08	81	-0.03		81

First author

Date

Title

Metropolitan Area Child Study Research Group 2002

A cognitive-ecological approach to preventing aggression in urban settings: initial outcome for high-risk children

Outcome Measure	Control									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>LEVEL B</b>																		
<b>Aggression</b>																		
<b>Early intervention</b>																		
Chicago	1.74	0.75	89	1.62	0.82	89	-0.12		89	2.02	0.67	82	2.04	0.87	82	0.02		82
Aurora	1.72	0.71	122	1.81	1.03	122	0		122	2.02	0.67	205	2.04	0.87	205	0.02		205
Total	1.73	0.91	211	1.73	1	211	0		211	1.84	0.94	287	1.76	1.02	287	-0.08		28
<b>Aggression</b>																		
<b>Late intervention</b>																		
Chicago	2.32	0.7	30	1.68	0.9	30	-0.64		30	2.48	0.75	37	2.31	0.96	37	-0.17		37
Aurora	2.36	0.82	47	1.85	0.99	47	-0.51		47	1.88	0.92	108	1.94	1.1	108	0.06		108
Total	2.34	0.81	77	1.78	1.8	77	-0.56		77	2.04	0.93	145	2.03	1.09	145	-0.01		145
<b>Aggression</b>																		
<b>Early &amp; late intervention</b>																		
Chicago	1.49	0.66	30	1.72	1.13	30	0.23		30	2.17	0.61	33	1.9	0.96	33	-0.27		33
Aurora	1.72	0.71	27	1.39	1.05	27	-0.33		27	1.72	0.75	37	1.83	1.04	37	0.09		37
Total	1.93	0.65	57	1.13	0.91	57	-0.8		57	1.93	0.76	70	1.86	1	70	-0.07		70

First author  
Date  
Title

Metropolitan Area Child Study Research Group 2002

A cognitive-ecological approach to preventing aggression in urban settings: initial outcome for high-risk children

Outcome Measure	Control									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
LEVEL C																		
Aggression																		
Early intervention																		
Chicago	1.81	0.74	118	1.67	0.83	118	-0.14		118	1.91	0.7	120	2.12	0.89	120	0.21		120
Aurora	1.72	0.71	122	1.81	1.03	122	0.09		122	2.03	0.74	100	1.63	1.1	100	-0.4		100
Total	1.76	0.91	240	1.74	0.99	240	-0.02		240	1.97	0.93	220	1.9	1.05	220	-0.07		220
Aggression																		
Late intervention																		
Chicago	2.23	0.75	51	1.88	0.89	51	-0.35		51	2.23	0.7	49	2.11	0.78	49	-0.12		49
Aurora	2.36	0.82	47	1.85	0.99	47	-0.51		47	2	0.7	70	1.65	1.08	70	-0.35		70
Total	2.29	0.81	98	1.86	0.93	98	-0.43		98	2.1	0.89	119	1.84	1	119	-0.26		119
Aggression																		
Early & late intervention																		
Chicago	1.99	0.64	37	1.23	0.9	37	-0.76		37	2.05	0.85	40	2.09	1.04	40	0.04		40
Aurora	1.49	0.66	27	1.72	1.13	27	0.23		27	1.9	0.84	26	2.18	0.99	26	0.28		26
Total	1.78	0.71	64	1.42	1.02	64	-0.36		64	2.05	0.85	66	2.09	1.04	66	0.04		66



First author Desbiens N et al 2003  
Date  
Title Peer groups and behaviour problems

Outcome Measure	Group I									Group II								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<i>Peers' evaluation</i>																		
Popularity	2.21	2.15	19	2.26	2.54	19			19	2.56	2.53	18	2.67	2.2	18			18
Reject	4.21	3.52	19	5.47	4.1	19			19	5.06	4.58	18	4.61	3.76	18			18
Social preference	-2	4.51	19	-3.21	5.41	19			19	7.61	4.03	18	7.28	3.34	18			18
Social impact	6.42	3.7	19	7.74	4.15	19			19	-2.5	6.2	18	-1.94	5.17	18			18
Social competency	-2.46	4.25	19	-3.21	5.41	19			19	-3.04	6.95	18	-2.76	5.95	18			18
School competency	-3.07	4.66	19	-3.32	5.8	19			19	-3.04	6.95	18	-4.07	5.48	18			18
Athletic competency	-2.11	4.28	19	-1.74	6.14	19			19	-0.83	5.71	18	-0.67	7.63	18			18
Social conduct	4.26	9.37	19	4.82	10.36	19			19	5.81	9.11	18	5.72	10.72	18			18
<i>Teachers' evaluation</i>																		
Popularity	3.39	1.24	19	3.47	1.26	19			19	3.34	1.2	18	3.72	1.07	18			18
Social competency	3.65	0.79	19	3.67	0.87	19			19	3.89	1.07	18	4.07	1.17	18			18
School competency	4.09	0.95	19	3.7	0.87	19			19	3.83	1.01	18	4	0.92	18			18
Athletic competency	4.22	1	19	4.16	1.8	19			19	4.11	0.68	18	4.44	0.98	18			18
Social conduct	3.92	1.97	19	4.16	1.8	19			19	4	0.86	18	4	1.5	18			18
<i>Self perception</i>																		
Social competency	22.16	3.47	19	21	3.95	19			19	19.71	4.69	18	20.06	5.94	18			18
School competency	20.84	4.67	19	19.76	4.67	19			19	20.28	4.93	18	18.88	4.99	18			18
Athletic competency	22.89	3.25	19	22.76	3.25	19			19	21.89	4.99	18	21.82	3.52	18			18
Self esteem	22.37	4.23	19	20.88	4.23	19			19	22.17	4.51	18	19.53	6.61	18			18

First author      Desbiens N et al 2003  
Date  
Title      Peer groups and behaviour problems

Outcome Measure	Group III - Control Group								
	Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N
<i>Peers' evaluation</i>									
Popularity	1.18	1.38	17	1.88	1.69	17			17
Reject	5.59	5.12	17	4.18	4.3	17			17
Social preference	6.76	4.98	17	6.06	4.56	17			17
Social impact	-4.41	5.61	17	-2.29	4.69	17			17
Social competency	-4.12	4.12	17	-2.98	3.39	17			17
School competency	-3.29	3.56	17	-3.67	4.75	17			17
Athletic competency	-2.12	5.57	17	-1.76	5.34	17			17
Social conduct	5.68	7.59	17	3.74	9.3	17			17
<i>Teachers' evaluation</i>									
Popularity	3.24	1.15	17	3.47	1.15	17			17
Social competency	3.49	0.91	17	3.49	0.91	17			17
School competency	3.73	1.13	17	3.51	0.93	17			17
Athletic competency	5	0.89	17	4.41	1.18	17			17
Social conduct	4.18	1.67	17	4.15	1.41	17			17
<i>Self perception</i>									
Social competency	20	5.84	17	18.76	4.93	17			17
School competency	20.65	6.29	17	19.12	4.74	17			17
Athletic competency	22.88	4.37	17	21.88	4.3	17			17
Self esteem	21.31	4.45	17	20.88	3.69	17			17

First author

Fraser MW et al 2004

Date

Title

Conduct problems and peer rejection in childhood: a randomised trial of the Making Choices and Strong Families Programs

Outcome Measure	MC + SF									Routine								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Prosocial behaviour	2.45	1.01	45	2.61	1	45				2.37	1	41	2.3	0.93	41			
Emotional regulation	2.06	1.14	45	2.19	1.02	45				2.21	1.07	41	2.01	1.06	41			
Social contact	3.44	1.02	45	3.65	0.86	45				3.57	0.96	41	3.43	0.91	41			
Cognitive concentration	2.42	0.97	45	2.62	1.03	45				2.41	1.18	41	2.37	1	41			
Relational aggression	3.49	1.13	45	3.61	0.85	45				3.57	0.93	41	3.45	0.99	41			
Authority acceptance	2.99	1.06	45	3.27	1.01	45				3.04	1.01	41	3.27	0.96	41			

First author

Kam C-M et al 2004

Date

Title

Sustained effects of the PATHS curriculum on the social and psychological adjustment of children in special education

Outcome Measure		
<b><i>Teacher related Behaviours</i></b> Trajectories of externalising behaviour Trajectories of internalising behaviour Social competence	significant group effect significant group effect not sig	outcome in intervention group decreased and in control group it increased both increased but at differing rates. Intervention rate lower
<b><i>Trajectories of self reported depression</i></b> growth in affective vocab social problem solving skills % aggressive solutions generated % non confrontational solutions	significant group effect not sig no sig effects marginally sig significant group effect	both decreased but at differing rates. Intervention rate higher  intervention group showed larger reduction intervention group showed larger increase

First author  
Date  
Title

Braswell, L et al 1997

School-based secondary prevention for children with disruptive behavior: initial outcomes

Outcome Measure	Multicomponent						Information/attention control					
	Baseline			post Test 1			Baseline			post Test 1		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Child behaviour, Adjustment, problem solving</b>												
<b>BASC-Child</b>												
Personal Adjustment	44.4	11.9	170	46.4	12.7	162	45.3	12.7	132	48.5	12.8	125
School Maladjustment	55.5	8.3	169	55	9.1	162	55.5	9.3	132	54.5	9.5	125
Clinical Maladjustment	52.5	11.4	170	50	11.5	162	51.5	12	132	49	12.1	125
<b>BASC-Parent</b>												
Adaptive skills	38.8	8	119	40	7.6	86	39.4	8.2	89	41.4	9.4	80
Externalizing	67.5	13.6	120	61.2	11.6	87	63.8	13.8	90	59.8	12.3	80
Internalizing	57.1	12	120	52.4	10.3	87	55.5	11.9	89	51.8	10.7	80
<b>BASC-Teacher</b>												
Adaptive skills	39.4	7	171	39.2	6.2	163	39.5	6.9	125	48.3	6.5	122
Externalizing	59.5	11.3	171	61.1	11.2	161	58.8	11.9	126	59.5	12.4	122
Internalizing	54.2	12.6	171	55.5	10.9	163	53.4	11.3	127	54.7	11.7	122
Connors-teacher Hyperactivity Index	1.7	0.7	171	1.6	0.6	164	1.7	0.7	128	1.6	0.7	121
<b>Rating of child</b>												
Problem solving - Teacher	47.9	17.9	169	53.2	18	159	50.5	16.8	125	54.2	19	121
Problem solving - Parent	53	16.9	123	63	16.7	87	57.2	15.8	96	58.6	16.6	77

First author

Braswell, L et al 1997

Date

Title

School-based secondary prevention for children with disruptive behavior: initial outcomes

Outcome Measure		post Test 2					post Test 2			
		mean	sd	N			mean	sd	N	
<b>BASC-Child</b>										
Personal Adjustment		47.5	11.5	135			50.6	10.9	111	
School Maladjustment		52.1	10.8	136			50	11.2	112	
Clinical Maladjustment		48.3	10.6	136			47.1	11	112	
<b>BASC-Parent</b>										
Adaptive skills		40.4	7.5	67			40.8	8.2	69	
Externalizing		62.3	10.9	67			59.1	10.4	69	
Internalizing		53	10	67			50.1	10	69	
<b>BASC-Teacher</b>										
Adaptive skills		40.3	6.5	135			40.1	5.7	108	
Externalizing		58.4	11.3	134			54.7	10	108	
Internalizing		54.6	11.5	134			51.3	9.5	108	
Connors-teacher Hyperactivity Index		1.6	0.7	138			1.5	0.7	113	
<b>Rating of child</b>										
Problem solving - Teacher		54.9	17.1	135			58.2	17	110	
Problem solving - Parent		58.2	15.6	65			62.2	16.3	69	

First author

Braswell, L et al 1997

Date

Title

School-based secondary prevention for children with disruptive behavior: initial outcomes

Outcome Measure		post Test 3					post Test 3			
		mean	sd	N			mean	sd	N	
<b>BASC-Child</b>										
Personal Adjustment		50.2	10.2	124			51.2	10.8	107	
School Maladjustment		52.2	11.6	124			50	11.8	107	
Clinical Maladjustment		46.9	10.7	124			45.5	11	107	
<b>BASC-Parent</b>										
Adaptive skills		40.4	8.4	47			41.8	9	47	
Externalizing		60.7	12	47			58.8	11.9	47	
Internalizing		52.6	11.3	47			50	11	47	
<b>BASC-Teacher</b>										
Adaptive skills		41.2	6.5	117			41.2	6.8	105	
Externalizing		59.7	10.2	118			56.3	10.8	105	
Internalizing		55.3	11.4	118			53.2	10.3	105	
Connors-teacher Hyperactivity Index		1.5	0.7	121			1.4	0.7	105	
<b>Rating of child</b>										
Problem solving - Teacher		57	17.5	118			56.8	17.4	94	
Problem solving - Parent		62.6	19.5	44			61.3	16.2	48	

First author

Braswell, L et al 1997

Date

Title

School-based secondary prevention for children with disruptive behavior: initial outcomes

Outcome Measure	Multicomponent									Information/attention control								
	Baseline			post Test 1			Change			Baseline			post Test 1			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Family parent outcomes</b>																		
BMSA	59.9	15.1	101	57.1	11.3	76				59	12.4	83	54.2	11	67			
PLOC	118.1	15.4	104	114	16.2	74				115.6	16.5	91	114.1	15.4	68			
<b>BASC-PPP</b>																		
Coping	37.5	13.4	100	44	12.2	75				40.2	12.9	84	45.3	12.4	67			
Involvement/communication	47.3	11.7	101	48.8	11	74				49.4	9.3	84	50.7	8.6	68			
Depression	52.9	11.2	101	47.9	8.1	76				48.5	7.2	84	48.3	8	68			
Outcome Measure				post Test 2									post Test 2					
				mean	sd	N							mean	sd	N			
<b>Family parent outcomes</b>																		
BMSA				56.2	12.2	52							54.2	11.3	58			
PLOC				115.7	15.1	51							110.9	15.6	57			
<b>BASC-PPP</b>																		
Coping				44.1	12.1	55							46.4	9.9	60			
Involvement/communication				48.2	10.1	54							50.2	9	60			
Depression				47.8	7.4	54							46.2	6.5	60			
Outcome Measure				post Test 3									post Test 3					
				mean	sd	N							mean	sd	N			
<b>Family parent outcomes</b>																		
BMSA				53.6	12.7	38							53.4	11.9	35			
PLOC				113.2	17.2	38							112.3	18.9	132			
<b>BASC-PPP</b>																		
Coping				43.6	11.9	38							45.7	12.1	36			
Involvement/communication				51	9.1	39							52.5	8.2	36			
Depression				48.1	9.8	39							48.7	10.3	36			



First author	Braswell, L et al 1997
Date	
Title	School-based secondary prevention for children with disruptive behavior: initial outcomes

First author  
Date  
Title

O'Donnell J et al 1995

Preventing school failure, drug use and delinquency among low-income children: long-term intervention in elementary schools

Outcome Measure	Intervention									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>GIRLS</b>																		
<b>Conventional</b>																		
Class				3.44	0.58	27							3.13	0.86	30			
Peer				3.55	0.74	28							3.33	0.97	30			
Outside classroom				2.63	1.08	27							2.45	1.33	29			
Family				3.07	0.61	27							2.86	0.7	30			
<b>Opportunities</b>																		
Outside classroom				3.15	0.99	27							3.37	0.72	30			
Classroom				3.38	0.49	27							2.97	0.82	30			
Team learning				3.63	0.56	27							3.1	0.92	30			
<b>Skills</b>																		
Social				1.78	0.38	16							1.8	0.35	27			
Schoolwork				1.67	0.5	16							1.62	0.5	27			
Cal. Achievement Test				525	0.48	27							518	0.48	29			
Grades				0.01	0.71	27							-0.15	0.84	29			
Substance abuse refusal				2.31	0.49	26							2.17	0.43	29			
Family management				3.54	0.45	27							3.52	0.54	30			
<b>Rewards</b>																		
Classroom participation				2.98	0.62	27							2.58	0.75	30			
Peer reinforcement				2.81	0.92	27							2.72	0.96	29			
Positive feedback from parents				3.52	0.58	27							3.43	0.63	30			
<b>Bonding</b>																		
Attachment to school				3.19	0.76	27							2.69	0.93	30			
Commitment to school				0.59	0.7	27							15	0.76	30			
Bonding to mother				3	0.81	27							2.75	0.91	28			
Bonding to father				2.61	0.92	22							2.5	0.84	20			
Belief in moral order				3.51	0.58	27							3.4	0.56	29			
Attachment to friends				2.65	0.83	27							2.82	0.83	28			
<b>Antisocial</b>																		
Peers, student report				0.72	1.07	25							0.89	1.23	28			
Peers, teacher report				0.31	0.7	16							0.22	0.51	27			
<b>Opportunities</b>																		
To get marijuana				-0.28	0.7	27							0.14	0.72	29			
Neighbourhood				2.65	1.16	26							2.69	1.11	29			
Antisocial rewards				1.29	0.42	27							1.49	0.58	29			

First author  
Date  
Title

O'Donnell J et al 1995

Preventing school failure, drug use and delinquency among low-income children: long-term intervention in elementary schools

Outcome Measure	Intervention									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Substance use norms</b>																		
Perceived risk				3.44	0.74	27							3.36	0.84	30			
Acceptability (peer gp)				3.91	0.2	26							3.8	0.42	30			
Expected adult alcohol use				3.48	0.7	27							3.57	0.68	30			
<b>Drug Use</b>																		
Alcohol				0.19	0.4	27							0.39	0.5	28			
Cigarettes				0.07	0.27	27							0.36	0.49	28			
Marijuana				0.04	0.19	27							0.17	0.38	29			
<b>Delinquency</b>																		
Initiation				0.56	0.51	27							0.57	0.5	30			
Runaway				0.04	0.19	27							0.03	0.18	30			

Outcome Measure	Intervention									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>BOYS</b>																		
<b>Conventional</b>																		
Class				3	0.63	16							3.03	0.82	32			
Peer				3.32	0.75	16							3.25	0.01	30			
Outside classroom				2.6	1.18	15							2.66	1.12	32			
Family				2.85	0.59	17							2.62	0.6	31			
<b>Opportunities</b>																		
Outside classroom				3.06	0.77	16							3.06	0.96	31			
Classroom				3.21	0.38	17							3.14	0.65	32			
Team learning				3.18	0.39	17							2.81	1.01	31			
<b>Skills</b>																		
Social				1.98	0.05	10							1.63	0.5	31			
Schoolwork				1.9	0.17	10							1.42	0.59	31			
Cal. Achievement Test				538	0.44	17							509	0.47	32			
Grades				-0.09	0.83	17							-0.61	0.84	28			
Substance abuse refusal				2.32	0.43	17							2.17	0.33	32			
Family management				3.41	0.44	17							3.35	0.55	31			
<b>Rewards</b>																		
Classroom participation				3.01	0.43	17							2.68	0.65	32			
Peer reinforcement				2.69	0.7	16							2.81	0.83	31			

First author  
Date  
Title

O'Donnell J et al 1995

Preventing school failure, drug use and delinquency among low-income children: long-term intervention in elementary schools

Outcome Measure	Intervention									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Positive feedback from parents				3.35	0.7	17							3.16	0.97	31			
<b>Bonding</b>																		
Attachment to school				3.1	0.48	17							2.72	0.81	32			
Commitment to school				0.18	0.67	17							-0.29	0.88	32			
Bonding to mother				2.79	0.61	17							2.55	0.93	32			
Bonding to father				2.44	0.73	16							2.6	0.84	30			
Belief in moral order				3.36	0.55	17							3.56	0.43	31			
Attachment to friends				2.59	0.81	17							2.33	0.97	30			
<b>Antisocial</b>																		
Peers, student report				1.13	1.4	15							0.92	1.21	28			
Peers, teacher report				0.2	0.63	10							0.55	0.77	31			
<b>Opportunities</b>																		
To get marijuana				-0.2	0.8	16							-0.1	0.7	31			
Neighbourhood				2.47	1.01	17							2.45	1.06	31			
Antisocial rewards				1.47	0.43	17							1.46	0.57	31			
<b>Substance use norms</b>																		
Perceived risk				3.32	0.92	17							3.53	0.72	32			
Acceptability (peer gp)				3.94	0.24	17							3.88	0.3	32			
Expected adult alcohol use				3.59	0.62	17							3.62	0.66	32			
<b>Drug Use</b>																		
Alcohol				0.24	0.44	17							0.23	0.43	31			
Cigarettes				0.06	0.24	17							0.11	0.31	28			
Marijuana				0.06	0.24	17							0.06	0.25	32			
<b>Delinquency</b>																		
Initiation				0.41	0.51	17							0.67	0.48	30			
Runaway				0.06	0.24	17							0.13	0.35	30			

First author                      Dadds MR et al 1997  
Date  
Title                                  Prevention and early intervention for anxiety disorders: a controlled trial

First author                      Dadds MR et al 1999  
Date  
Title                                  Early intervention and prevention of anxiety disorders in children: results at 2-year follow-up

*N's are assumed from another table (may be different due to follow ups but is not reported post int & 6 month data from 1997 and 12 month& 2 yr from 1999*

Post intervention

Outcome Measure	Monitoring									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Clinician's rating							3.52	0.93	67							4.23	1.17	61
Overall functioning							3.62	0.92	67							4.12	0.96	61
Overall anxiety							3.59	0.89	67							4.03	1.03	61
Avoidance							3.32	0.75	67							3.95	1.16	61
Family disruption							3.2	0.64	67							3.62	0.9	61
Parent's ability							3.41	0.84	67							4.02	0.97	61
Child's ability							3.68	0.79	67							4.27	1.09	61

6 month follow up

Outcome Measure	Monitoring									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Clinician's rating							4.13	0.99	67							4.75	1.15	61
Overall functioning							4.33	1.1	67							4.61	1.13	61
Overall anxiety							4.02	1.16	67							4.46	1.19	61
Avoidance							4.06	1	67							4.49	0.99	61
Family disruption							3.05	0.95	67							3.37	1.03	61
Parent's ability							3.55	1.14	67							3.8	1.06	61
Child's ability							4.03	1.01	67							4.41	1.05	61

First author Dadds MR et al 1997  
 Date  
 Title Prevention and early intervention for anxiety disorders: a controlled trial

First author Dadds MR et al 1999  
 Date  
 Title Early intervention and prevention of anxiety disorders in children: results at 2-year follow-up  
 12 month follow up

Outcome Measure	Monitoring									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Clinician's rating							4.73	1.17	67							4.98	1.14	61
Overall functioning							4.64	1.25	67							4.72	1.17	61
Overall anxiety							4.21	1.3	67							4.44	1.37	61
Avoidance							4.17	1.2	67							4.48	1.2	61
Family disruption							3.34	1.11	67							3.66	1.31	61
Parent's ability							3.59	1.11	67							4.18	1.24	61
Child's ability							4.48	1.08	67							4.83	1.06	61

24 month follow up

Outcome Measure	Monitoring									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Clinician's rating							4.64	0.98	67							5.27	0.78	61
Overall functioning							4.89	1.18	67							5.17	1.07	61
Overall anxiety							4.67	1.16	67							4.92	1.08	61
Avoidance							4.1	1.24	67							4.74	1.04	61
Family disruption							3.28	1.08	67							3.44	1.27	61
Parent's ability							3.79	1.06	67							4.09	1.32	61
Child's ability							4.67	1.04	67							4.94	1.08	61

First author  
Date  
Title

Dadds MR et al 1997  
  
Prevention and early intervention for anxiety disorders: a controlled trial

First author  
Date  
Title  
Base = Pre intervention  
End = post intervention

Dadds MR et al 1999  
  
Early intervention and prevention of anxiety disorders in children: results at 2-year follow-up

Outcome Measure	Monitoring						Intervention					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>CBCL</b>												
Externalising T score	46.51	9.44		47.48	9.72		49.66	10.99		48.68	11.29	
Internalising T score	58.76	8.56		55.25	9.03		61.28	11.74		57.15	11.46	
RCMAS	17.15	5.73		11.46	7		16.98	6.92		11.52	7.32	

Base = Pre intervention  
End = 6 month follow up

Outcome Measure	Monitoring						Intervention					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>CBCL</b>												
Externalising T score	46.51	9.44		46.15	9.11		49.66	10.99		49.23	12.5	
Internalising T score	58.76	8.56		52.84	9.66		61.28	11.74		56.05	12.34	
RCMAS	17.15	5.73		9.57	6.35		16.98	6.92		9.25	7.45	

First author

Webster-Stratton C et al 2004

Date

Title

Treating children with early-onset conduct problems: intervention outcomes for parent, child and teacher training.

Outcome Measure	PT						PT + TT					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Composite scores</b>												
<b>Child conduct problems</b>												
at home/mother	48.39	13.43	31	36.4	11.47	31	46.56	9.57	24	39.76	12.22	24
at home/father	45.38	11.39	22	36.09	10.02	22	44.3	11.37	14	36.14	7.45	14
<b>Child social competence</b>												
with peers	47.19	16.98	30	48.19	15.38	30	41.7	14.54	23	47.41	14.81	23
<b>Child conduct problems</b>												
at school	31.86	16.68	30	28.35	14.42	30	49.8	16.01	24	37.56	16.32	24
<b>Teacher negative</b>	23.31	14	30	23.48	12.78	30	25.77	10.7	24	14.82	7.71	24

1 year follow up

Outcome Measure	PT						PT + TT					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Composite scores</b>												
Mother negative parenting				33.35	15.87	30				29.21	14.85	22
Father negative parenting				32.78	15.81	21				26.81	14.83	14
Mother positive parenting				66.07	11.27	29				71.21	10.57	22
Father positive parenting				61.04	11.97	23				67.18	14.93	14
<b>Child conduct problems</b>												
at home/mother				36.74	12.29	30				38.4	12.7	22
at home/father				35.12	8.88	21				34.94	13.03	14
<b>Child social competence</b>												
with peers				50.62	17.73	27				50.06	11.5	21
<b>Child conduct problems</b>												
at school				28.56	16.26	29				30.32	15.46	21



First author

Webster-Stratton C et al 2004

Date

Title

Treating children with early-onset conduct problems: intervention outcomes for parent, child and teacher training.

Outcome Measure	CT						CT + TT					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Composite scores</b>												
<b>Child conduct problems</b>												
at home/mother	45.07	9.6	29	39.42	12.19	29	46.83	8.56	23	37.13	9.83	23
at home/father	41.18	8.58	23	39.39	8.64	23	46.98	11.37	15	39.66	10.15	15
<b>Child social competence</b>												
with peers	46.56	13.16	30	51.66	14.85	30	38.86	12.85	23	45.98	14.2	23
<b>Child conduct problems</b>												
at school	36.42	17.6	30	30.78	14.73	30	41.5	15.41	23	34.04	15.44	23
<b>Teacher negative</b>	23.07	13.25	30	18.78	14.47	30	20.1	10.86	23	14.7	9.03	23

1 year follow up

Outcome Measure	CT						CT + TT					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Composite scores</b>												
Mother negative parenting				31.06	16.1	27				34.09	12.98	20
Father negative parenting				28.85	14.62	21				36.5	17.58	13
Mother positive parenting				64.75	16.63	28				62.78	12.32	21
Father positive parenting				59	11.08	21				50.3	13.24	13
<b>Child conduct problems</b>												
at home/mother				34.77	11.72	27				37.95	12.02	20
at home/father				32.9	10.25	21				35.86	15.51	13
<b>Child social competence</b>												
with peers				6.02	17.47	28				46.06	20.33	23
<b>Child conduct problems</b>												
at school				32.7	14.93	28				37.55	21.07	23

First author

Webster-Stratton C et al 2004

Date

Title

Treating children with early-onset conduct problems: intervention outcomes for parent, child and teacher training.

Outcome Measure	PT+CT + TT									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Composite scores</b>																		
<b>Child conduct problems</b>																		
at home/mother	50.98	15.43	25	38.37	10.46	25				45.26	10.15	26	46.59	9.79	26			
at home/father	44.9	14.26	18	35.41	11.77	18				43.87	8.27	23	44.11	6.62	23			
<b>Child social competence</b>																		
with peers	42.99	13.24	25	52.37	12.77	25				47.51	13.67	26	46.42	15.41	26			
<b>Child conduct problems</b>																		
at school	42.28	21.3	25	31.6	14.23	25				31.31	15.73	26	35.8	18.69	26			
<b>Teacher negative</b>																		
	22.75	9.62	25	14.44	7.11	25				23.13	13.79	26	24.12	13.87	26			

1 year follow up

Outcome Measure	PT+CT + TT								
	Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N
<b>Composite scores</b>									
Mother negative parenting				34.53	14.3	22			
Father negative parenting				30.36	13.64	16			
Mother positive parenting				67.67	12.48	24			
Father positive parenting				66.6	14.33	17			
<b>Child conduct problems</b>									
at home/mother				36.52	9.44	22			
at home/father				32.54	8.88	16			
<b>Child social competence</b>									
with peers				45.4	15.07	21			
<b>Child conduct problems</b>									
at school				39.76	20.86	23			

First author  
Date  
Title

Hudley C

Outcome Measure	Experiment									Attention Training								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Aggressive subjects rating</b>																		
<b>Intent</b>																		
Hostile	6.04		20	6.81		20				6.21		22	6.4		22			
Ambiguous	5.31		20	2.63		20				5.18		22	5.21		22			
Prosocial	2.55		20	2.05		20				2.65		22	3.1		22			
Accidental	2.11		20	1.65		20				2.59		22	2.07		22			
<b>Anger</b>																		
Hostile	6.75		20	6.78		20				6.71		22	6.57		22			
Ambiguous	5.51		20	3.39		20				5.53		22	5.31		22			
Prosocial	2.5		20	1.78		20				3.11		22	3.09		22			
Accidental	3.22		20	2.25		20				3.52		22	2.32		22			
<b>Behavior</b>																		
Hostile	4.9		20	5.26		20				4.96		22	4.96		22			
Ambiguous	4.45		20	2.85		20				4.23		22	3.81		22			
Prosocial	2.63		20	1.79		20				2.6		22	2.36		22			
Accidental	2.9		20	2.63		20				2.91		22	2.64		22			
<b>Teacher Rating</b>																		
Total agression	27.55			24.05						24.05			26.23					
Reactive agression	11.05			9.55						10.18			12.27					
Prosocial behaviour	13.05			14.65						14			14.73					
School Behaviour	14.8			14.4						14.45			14.82					

First author  
Date  
Title

Hudley C

Outcome Measure	Control								
	Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N
<b>Aggressive subjects rating</b>									
<b>Intent</b>									
Hostile	6.43		24	6.32		24			
Ambiguous	4.63		24	4.69		24			
Prosocial	2.22		24	3.14		24			
Accidental	2.53		24	2.09		24			
<b>Anger</b>									
Hostile	6.73		24	6.46		24			
Ambiguous	5.18		24	4.71		24			
Prosocial	3.1		24	3.67		24			
Accidental	3.06		24	2.5		24			
<b>Behavior</b>									
Hostile	4.63		24	4.38		24			
Ambiguous	3.81		24	3.65		24			
Prosocial	2.3		24	2.16		24			
Accidental	2.63		24	2.91		24			
<b>Teacher Rating</b>									
Total agression	26.83			25.71					
Reactive agression	11.38			11.13					
Prosocial behaviour	14.79			15.62					
School Behaviour	13.17			12.17					

Outcome Measure	Treatment						Control					
	Baseline			End			Change			Baseline		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Symptomatology</b>												
Pre test / post test												
Child depression inventory scores	9.08	6.7	67	7.65	6	61				9.94	6.5	70
Reynolds children's depression scale scores	51.31	11.2	67	46.35	9.5	61				52.59	11.2	70
Explanatory style (CP CN)	5.55	3.9	67	6.02	5.3	61				50.27	11.1	60
Internalizing behaviour problems at home	55.44	13.4	31	50.58	12.4	31				5.66	4.1	65
Externalizing behaviour problems at home	53.31	13.3	31	50.65	11.5	31				54.16	10.7	38
Classroom behaviour	4.19	0.8	66	4.38	0.89	66				51.34	12.7	38
										4.38	0.89	24
										4.31	1.07	24
follow up												
Child depression inventory scores				7.76	6.7	55				10.22	6.8	64
Reynolds children's depression scale scores				48.18	10.6	55				50.96	11.2	64
Explanatory style (CP CN)				6.14	4	57				5.46	4.8	65
Internalizing behaviour problems at home				50.32	10.4	31				52.36	10.2	38
Externalizing behaviour problems at home				48.44	11.7	31				52.09	11.9	38
Classroom behaviour				N/A	N/A	N/A				N/A	N/A	N/A
<b>Explanatory style composite scores</b>												
Pre test / post test												
Composite Score (CP-CN)	5.55	3.9	67	6.02	5.3	61				4.93	3.7	71
Composite of negative events (CN)	7.49	2.6	67	7.34	3.3	61				5.66	4.1	65
Composite of positive events (CP)	13.04	2.7	67	13.36	3.6	61				7.83	2.5	65
										12.8	2.6	71
										13.49	3	65
follow up												
Composite Score (CP-CN)				6.14	4	57				5.46	4.8	65
Composite of negative events (CN)				6.69	2.8	57				7.75	3	65
Composite of positive events (CP)				12.99	3.5	57				13.2	3.3	65
<b>Explanatory style individual dimensions</b>												
Pre test / post test												
Negative events												
Stable	2.64	1.5	67	2.22	1.5	61				2.39	1.2	71
Internal	2.74	1.5	67	2.76	1.7	61				2.51	1.5	65
Global	2.11	1.3	67	2.3	1.4	61				3.08	1.7	65
										2.3	1.3	65
Positive events												
Stable	3.88	1.4	67	4.15	1.7	61				2.48	1.5	71
Internal	4.81	1.5	67	4.74	1.4	61				3.94	1.6	71
Global	4.31	1.3	67	4.48	1.6	61				3.96	1.7	65
										4.73	1.3	71
										4.52	1.5	65
follow up												
Negative events												
Stable				1.8	1.4	57				2.43	1.4	65
Internal				2.71	1.6	57				3.09	1.8	65
Global				2.18	1.1	57				2.23	1.5	65
Positive events												
Stable				3.97	1.8	57				3.79	1.6	65
Internal				4.92	1.5	57				5.07	1.3	65

Global		4.09	1.6	57			4.33	1.6	65	
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First author	Stein 2003
Date	
Title	

Outcome Measure	Early intervention									Late intervention									Adjusted mean diff (CI)		
	Baseline			End			Change			Baseline			End			Change			adjusted for baseline score mean :l (lowe CI (upper)		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N			
<b>3 month assessment</b>																					
<i>Child report</i>																					
Symptoms of PTSD				8.9		54							15.5		63				-7	-10.8	-3.2
Symptoms of depression				9.4		54							12.7		63				-3.4	-6.5	-0.4
<i>Parent report</i>																					
Psychosocial dysfunction				12.5		54							16.5		63				-6.4	-10.4	-2.3
<i>Teacher report</i>																					
Acting out problems				9.4		54							10.2		63				-1	-2.5	0.5
Shyness/anxiousness problems				9.8		54							10.6		63				0.1	-1.5	1.7
Learning problems				12.7		54							13.3		63				-1.1	-2.9	0.8
<b>6 month assessment</b>																					
<i>Child report</i>																					
Symptoms of PTSD				8.2		53							7.2		60				0.3	-3.4	3.9
Symptoms of depression				9		53							10		60				-0.8	-4.1	2.5
<i>Parent report</i>																					
Psychosocial dysfunction				9.4		53							8.9		60				-1.9	-5.8	2.1
<i>Teacher report</i>																					
Acting out problems				9.2		53							10.7		60				-0.9	-2.6	0.8
Shyness/anxiousness problems				9.2		53							10.9		60				-0.9	-2.5	0.7
Learning problems				13.5		53							14.7		60				-1.9	-3.9	0.2

First author

Larkin R et al 1999

Date

Title

Evaluating cognitive-behavioral group counselling to improve elementary school students' self-esteem, self-control and classroom behaviour.

Outcome Measure	Immediate Tx									Delayed Tx								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
1st & 2nd assessment																		
RSES	22.52	3.34	31	13.84	2.86	31				22.95	2.71	21	22.38	2.97	21			
CPSCS	5.47	2.45	31	7.97	1.68	31				5.19	1.99	21	5.38	2.27	21			
Teachers' grades	2.87	1.09	31	1.87	0.88	31				3.62	0.59	21	3.71	0.56	21			
Teacher aides' grades	3.23	0.76	31	1.84	0.69	31				3.67	0.48	21	3.76	0.44	21			
3rd assessment																		
RSES				12.55	1.52	31							13.43	1.57	21			
CPSCS				9.1	1.14	31							8.24	1.04	21			
Teachers' grades				1.65	0.71	31							1.76	0.54	21			
Teacher aides' grades				1.74	0.63	31							1.76	0.62	21			

Ns are assumed from another table in the paper - drop outs may have occurred but not noted



First author	Liddle B et al 1990
Date	
Title	Cognitive-behaviour therapy (CBT) with depressed primary school children: a cautionary note

Outcome Measure	Social competence training									Attention placebo control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Pre /post																		
Children's depression inventory	21	4.45	11	14.45	6.74	11				22.3	4.24	10	19.3	6.93	10			
List of social situation problems	30	11.6	11	25.91	13.15	11				27.4	8.55	10	25	6.68	10			
Matson Evaluation of social skills for youngsters (total score)	110.45	25.54	11	113	19.21	11				117.8	17.18	10	116	32.51	10			
Matson Evaluation of social skills for youngsters positive social skills)	70.18	21.42	11	69.73	25.42	11				70	16.56	10	74.7	19.86	10			
Teacher's MESSY (total score)	126.82	32.41	11	n/a						134.6	23.6	10	n/a					
follow up																		
Children's depression inventory				13.64	7.65	11							16.5	6.1	10			
List of social situation problems				22.45	11.81	11							23.2	8.93	10			
Matson Evaluation of social skills for youngsters (total score)				116	20.79	11							113.9	27.41	10			
Matson Evaluation of social skills for youngsters (positive social skills)				73.18	21.19	11							70.8	22.09	10			
Teacher's MESSY (total score)				139.55	41.58	11							136.9	24.77	10			

First author  
Date  
Title

Liddle B et al 1990  
  
Cognitive-behaviour therapy (CBT) with depressed primary school children: a cautionary note

Outcome Measure	No treatment control								
	Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N
Pre /post									
Children's depression inventory	20.7	3.34	10	16.9	6.79	10			
List of social situation problems	27.8	10.53	10	28.6	10.52	10			
Matson Evaluation of social skills for youngsters (total score)	114.6	30.12	10	121.2	29.53	10			
Matson Evaluation of social skills for youngsters positive social skills)	79.8	14.67	10	72.8	15.12	10			
Teacher's MESSY (total score)	137.7	32.37	10	n/a		10			
follow up									
Children's depression inventory				14.9	4.01	10			
List of social situation problems				26.3	12.47	10			
Matson Evaluation of social skills for youngsters (total score)				120.6	30.97	10			
Matson Evaluation of social skills for youngsters (positive social skills)				74.6	19.86	10			
Teacher's MESSY (total score)				160.7	42.58	10			

First author  
Date  
Title

Mize J et al 1990

A cognitive-social learning approach to social skills learning with low-status pre-school children

Outcome Measure	Skill Training									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Observed social skills</b>																		
Questions	1.06	1.34	18	2.53	3.28					1.62	1.04	15	2	1.86				
Leads	1.65	1.58	18	4.18	4.26					2.92	2.1	15	1.92	1.93				
Supports	0.71	0.99	18	1.35	1.93					0.77	1.24	15	0.75	0.62				
Comments	3.71	3.02	18	8.53	5.48					6	6.53	15	6.17	3.46				
<b>Composite observational measures</b>																		
Combined skills	7.12	5.42	18	16.58	13.3					11.31	9.9	15	10.83	5.75				
Nonpeer	91.35	13.98	18	78.71	22.06					83.23	24.45	15	77.75	23.38				
Total peer	26.88	16.33	18	41.5	19.11					33.67	22.04	15	37.67	21.06				
Proportion skills	0.26	0.13	18	0.37	0.18					0.3	0.09	15	0.27	0.06				
Aversive	1.41	0.27	18	2.33	0.13					1.75	0.63	15	1.8	0.69				
<b>Social knowledge ratings</b>																		
Friendliness	8.33	3.09	18	9.13	2.73					9.23	2.42	15	7.25	3.22				
Assertive	12.11	2.14	18	11.38	2.68					10.85	3.56	15	12.92	2.68				

Not sure what Ns are at end for this data -- table below shows some drop outs

Outcome Measure	Skill Training									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Standardised sociometric scores</b>																		
<i>Pretest posttest</i>																		
Positive nominations	-1.04	0.36	18	-0.52	0.55	17				-0.78	0.64	15	0.06	0.95	14			
Negative nominations	-0.1	0.89	18	-0.18	0.85	17				0.5	1.09	15	0.26	0.83	14			
Sociometric ratings	-0.59	1.16	18	-0.13	0.67	17				-0.66	0.86	15	-0.28	0.86	14			
<i>follow up</i>																		
Positive nominations				-0.14	0.84	12							-0.97	0.48	4			
Negative nominations				-0.02	0.85	12							1.69	0.65	4			
Sociometric ratings				-0.14	0.89	12							-0.87	1.01	4			

First author	Weisz JR et al 1997
Date	
Title	Brief treatment of mild-to-moderate child depression using primary and secondary control enhancement training

Outcome Measure	Treatment						Control					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Pre post												
CDI	18.63	5.32	16	7.06	6.12		17.81	10.05	32	11.81	10	
CDRS-R	45.25	16.01	16	33.19	10.86		38.38	11.15	32	34.94	10.93	
9month follow up												
CDI				5.77	5.15					10.25	8.48	
CDRS-R				28.08	7.15					28.59	8.75	

not sure what Ns are at end and follow up (only 29 analysed at 9 months but don't know which groups)

First author  
Date  
Title

Stolberg AL et al 1994

Enhancing Treatment Gains in a School-Based Intervention for Children of Divorce Through Skill Training, Parental Involvement and

Outcome Measure	Transfer, skills & support									Skills and support								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b><u>Pretest post test</u></b>																		
<b><i>Self perception profile</i></b>																		
Scholastic	15.47	3.52	29	17	3.91	28				16.66	4.03	28	18.41	3.03	27			
Social	16.1	4.4	29	18.46	4.15	28				17.14	4.54	28	19.33	3.04	27			
Athletic	15.77	4.67	29	17.89	3.98	28				17.42	3.77	28	17.11	3.33	27			
Physical appearance	15.37	3.59	29	17.86	4.54	28				18	4.3	28	18.56	4.32	27			
Behaviour conduct	17.07	3.24	29	18.5	3.23	28				17.17	3.86	28	17.22	3.39	27			
General self worth	16.93	3.23	29	19.54	2.85	28				18.28	4.23	28	18.11	4.16	27			
Child assessment schedule	37.39	20.95	29	30.9	21.32	28				43.49	20.07	28	30.9	16.46	27			
<b><i>State trait anxiety inventory for children</i></b>																		
State	30.09	7.13	29	28.77	5.24	28				31.86	9.86	28	29.32	5.93	27			
Trait	37.06	6.42	29	30.65	7.18	28				36.74	8.18	28	34.04	8.84	27			
Children's depression inventory	10.06	6.57	29	6.1	5.93	28				11.41	11.59	28	7.56	6.77	27			
Child behaviour checklist																		
Activities	48.97	8.52	29	49.04	6.47	28				48.06	8.37	28	44.58	10.34	27			
Social	40.4	10.95	29	42.19	8.29	28				40.11	10.28	28	43.23	7.38	27			
School	46.57	17.44	29	45.27	15.57	28				40.51	11.48	28	42.08	15.34	27			
Internalizing	64.9	9.27	29	59.04	10.35	28				59.86	9.56	28	52.69	9.48	27			
Externalizing	62.2	12.06	29	59.31	10.64	28				63.03	8.37	28	54.58	8.67	27			
sum t	64.6	11.37	29	59.77	11.52	28				62.43	9.1	28	53.58	8.94	27			
<b><i>Teacher's rating form</i></b>																		
Academies	53.64	12.5	29	53.87	14.48	28				45.85	9.79	28	47.89	12.69	27			
Adaptive function	44.67	10.54	29	45.97	13.45	28				42.09	9.17	28	48.64	19.99	27			
Happy	44.64	12.1	29	48.58	15	28				46.94	9.99	28	51.18	17.08	27			
Learning	48.91	9.74	29	50.35	12.1	28				46.29	10.35	28	49.5	16.11	27			
Internalizing	55.64	7.51	29	54.84	8.05	28				55	7.92	28	52.21	7.62	27			
Externalizing	56.85	8.9	29	55.58	8.54	28				58.91	10.13	28	56.43	9.06	27			
Sum t	56.73	9.11	29	54.94	9.12	28				58.06	10.64	28	54.79	10.17	27			

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Stolberg AL et al 1994

Enhancing Treatment Gains in a School-Based Intervention for Children of Divorce Through Skill Training, Parental Involvement and Transfer Procedures

Outcome Measure	Support									Divorce controls									Intact family controls								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Pretest post test</b>																											
<b>Self perception profile</b>																											
Scholastic	18.5	4.65	23	18.91	4.39	22				19.3	2.85	23	19.77	2.78	22				18.57	3.5	26	18.74	3.92	26			
Social	17.92	4.43	23	9.55	3.92	22				18.95	3.21	23	19.36	3.95	22				18.53	3.95	26	18.92	3.69	26			
Athletic	18.42	4.32	23	17.73	4.32	22				19.48	4.35	23	19.86	4.16	22				16.07	3.85	26	16.89	3.98	26			
Physical appearance	16.83	3.96	23	18.36	4.05	22				19.65	3.97	23	20.09	3.44	22				17.37	4.21	26	18.55	3.97	26			
Behaviour conduct	18.83	3.48	23	18.91	3.89	22				19.61	2.68	23	19.91	2.31	22				19.93	4.08	26	20.21	3.35	26			
General self worth	18.25	3.25	23	19.14	3.54	22				20.52	3.79	23	20.5	2.7	22				20.63	2.83	26	20.03	3.65	26			
Child assessment schedule	33.83	19.18	23	25.64	17.4	22				26.65	14.4	23	18.63	11.03	22				22.06	13.91	26	14.33	7.2	26			
<b>State trait anxiety inventory for children</b>																											
State	27.13	4.46	23	27.48	8.02	22				29.65	7.26	23	26.59	4.09	22				27.47	5.43	26	28.61	4.38	26			
Trait	33.63	8.25	23	31.57	9.41	22				32.35	6.8	23	27.14	7.3	22				36.07	6.97	26	32.26	6.79	26			
Children's depression inventory	8.96	7.15	23	5.14	5.01	22				6.13	4.91	23	3	2.58	22				6.1	4.99	26	5.16	6.42	26			
Child behaviour checklist																											
Activities	48.04	6.82	23	47.55	7.84	22				49.65	7.41	23	48.95	6.71	22				49.73	6.45	26	51.58	17.07	26			
Social	46.54	13.66	23	43.68	9.43	22				47.96	6.68	23	44.55	10.7	22				48.43	7.25	26	53.04	18.73	26			
School	44.67	9.35	23	46.82	9.94	22				46.82	7.08	23	46.91	7.37	22				47.7	13.25	26	52.69	18.9	26			
Internalizing	58.92	9.74	23	59.05	7.79	22				53.43	11.18	23	51.86	10.86	22				53.33	0.42	26	51.42	9.86	26			
Externalizing	57.42	8.13	23	57.73	8.42	22				51.56	12.88	23	51.36	11.89	22				52.47	9.39	26	50.65	9.96	26			
sum t	58.75	8.86	23	59.23	7.46	22				51.74	13.16	23	50.68	12.35	22				52.47	10.45	26	51.27	10.52	26			
<b>Teacher's rating form</b>																											
Academies	53.75	8.19	23	55.8	13.99	22				53.95	9	23	55.41	14.49	22				51.26	6.7	26	71.75	25.37	26			
Adaptive function	47.88	9.79	23	47.93	16.92	22				48.71	11.45	23	46	7.43	22				55.06	16.44	26	69.31	27.33	26			
Happy	49.83	11.92	23	48.67	18.02	22				49.05	8.8	23	48.18	6.25	22				58.58	15.33	26	71.97	24.8	26			
Learning	50.87	9.43	23	52.07	15.72	22				53.67	11.97	23	51.35	9.03	22				56.64	16.16	26	70.97	25.87	26			
Internalizing	53.38	10.07	23	53.33	9.74	22				53.67	8.76	23	51.24	6.68	22				47.48	5.38	26	45.94	5.27	26			
Externalizing	51.54	9.7	23	51.87	9.93	22				54.52	10.55	23	52.82	8.8	22				47.35	6.44	26	46.63	6.87	26			
Sum t	51.21	11.12	23	52.53	11.19	22				53.43	11.25	23	51.76	9.64	22				44.8	7.83	26	43.34	43.34	26			
																						8.34					

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Outcome Measure	
<b>Pretest post test</b>	
<b>Self perception profile</b>	
Scholastic	
Social	
Athletic	
Physical appearance	
Behaviour conduct	
General self worth	
Child assessment schedule	
<b>State trait anxiety inventory for children</b>	
State	
Trait	
Children's depression inventory	
Child behaviour checklist	
Activities	
Social	
School	
Internalizing	
Externalizing	
sum t	
<b>Teacher's rating form</b>	
Academies	
Adaptive function	
Happy	
Learning	
Internalizing	
Externalizing	
Sum t	

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Date  
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Stolberg AL et al 1994

Enhancing Treatment Gains in a School-Based Intervention for Children of Divorce Through Skill Training, Parental Involvement and

Outcome Measure	Transfer, skills & support									Skills and support								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Follow up</b>																		
<b>Self perception profile</b>																		
Scholastic				16.5	4.01	24							18.95	3.72	21			
Social				18.96	3.95	24							20.52	4.03	21			
Athletic				17.58	5.28	24							18	4.63	21			
Physical appearance				17.13	4.95	24							18.71	4.86	21			
Behaviour conduct				18.33	2.91	24							20.09	3.13	21			
General self worth				18.54	3.26	24							19.52	4.94	21			
Child assessment schedule				30	20.68	24							20.15	11.28	21			
<b>State trait anxiety inventory for children</b>																		
State				29	5.35	24							28.43	7.08	21			
Trait				32.28	5.63	24							31.86	9.04	21			
Children's depression inventory				6.96	6.19	24							6.62	7.46	21			
<b>Child behaviour checklist</b>																		
Activities				49.53	5.85	24							51.38	17.69	21			
Social				44.94	8.5	24							44.15	8.82	21			
School				42	8.86	24							47.84	18.35	21			
Internalizing				59.47	9.51	24							55.62	8.71	21			
Externalizing				57.94	9.49	24							55.15	7.63	21			
Sum t				59.58	10.65	24							55.15	7.67	21			
<b>Teacher's rating form</b>																		
Academics				51.7	9.15	24							45.88	9.27	21			
Adaptive function				52.6	18.66	24							47.53	16	21			
Happy				55.3	17.79	24							50.76	15.98	21			
Learning				56.55	18.08	24							49.88	15.16	21			
Internalizing				53.05	7.03	24							52.06	7.58	21			
Externalizing				53.6	9.57	24							55.59	8.85	21			
Sum t				52.85	10.64	24							54	9.79	21			



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Enhancing Treatment Gains in a School-Based Intervention for Children of Divorce Through Skill Training, Parental Involvement and Transfer Procedures

Outcome Measure	Support									Divorce controls									Intact family controls								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Follow up</b>																											
<b>Self perception profile</b>																											
Scholastic				17.9	3.69	21							18.27	4.91	22							20.16	2.96	21			
Social				19.55	3.98	21							19.86	4.52	22							19.39	2.49	21			
Athletic				17.29	3.49	21							19.09	4.95	22							17.37	3.85	21			
Physical appearance				17.19	3.93	21							19.55	3.58	22							18.6	3.01	21			
Behaviour conduct				18.76	3.08	21							19.14	3.81	22							20.2	3.01	21			
General self worth				18.76	2.73	21							20.23	3.73	22							20.4	2.81	21			
Child assessment schedule				27.72	21.77	21							33.38	29.73	22							17.6	12.96	21			
<b>State trait anxiety inventory for children</b>																											
State				27.24	4.4	21							26.55	6.43	22							27.13	5.4	21			
Trait				33.19	6.67	21							29	7.55	22							32.74	7.69	21			
Children's depression inventory				5.95	4.82	21							7.13	9.89	22							3.68	5.79	21			
<b>Child behaviour checklist</b>																											
Activities				49.63	7.46	21							49.95	6.18	22							49.43	6.85	21			
Social				49.37	14.49	21							24.53	24.53	22							56.05	22.84	21			
School				46.53	8.42	21							45.77	7.71	22							46.71	15.41	21			
Internalizing				53.79	6.63	21							53.59	10.44	22							53.29	10.25	21			
Externalizing				54.53	9.24	21							53.82	11.1	22							52.67	7.51	21			
Sum t				55.21	7.58	21							54.14	12.36	22							54.66	9.58	21			
<b>Teacher's rating form</b>																											
Academies				57.11	12.3	21							57.67	15.67	22							61.44	16.79	21			
Adaptive function				51.89	13.48	21							56.22	21.61	22							64.67	20.65	21			
Happy				54.33	13.44	21							56.33	21.91	22							64.56	21.34	21			
Learning				55.72	13.13	21							61.33	19.23	22							66.67	20.32	21			
Internalizing				49.17	6.77	21							56.72	11.59	22							48.22	6.84	21			
Externalizing				50.44	5.78	21							55.61	10.9	22							45.94	4.35	21			
Sum t				48.06	6.43	21							55.39	12.65	22							44	6.45	21			

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Outcome Measure	
<b><u>Follow up</u></b>	
<b><i>Self perception profile</i></b>	
Scholastic	
Social	
Athletic	
Physical appearance	
Behaviour conduct	
General self worth	
Child assessment schedule	
<b><i>State trait anxiety inventory for children</i></b>	
State	
Trait	
Children's depression inventory	
<b><i>Child behaviour checklist</i></b>	
Activities	
Social	
School	
Internalizing	
Externalizing	
Sum t	
<b><i>Teacher's rating form</i></b>	
Academies	
Adaptive function	
Happy	
Learning	
Internalizing	
Externalizing	
Sum t	

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Barkley RA et al 2000

Multi-method psycho-educational intervention for preschool children with disruptive behaviour: preliminary results at post-treatment

Outcome Measure	No treatment						PT only					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Home Measures</b>												
Adaptive behaviour				94.3	13.7	42				92	11.1	39
<b>HSQ</b>												
No of settings				7.8	3.5	42				7.6	3.7	39
Mean severity				3.6	1.5	42				3.4	1.6	39
<b>Parenting</b>												
Practices				138	14	42				136.7	12.5	39
Efficacy				29	6.1	42				29	3.3	39
Satisfaction				35.4	8.3	42				36.8	8.2	39
Stress				79.2	26	42				68	34	39
<b>CBCL</b>												
Withdrawal				54.4	6.7	42				56.9	12	39
Anxiety				55	7.4	42				58.1	12.1	39
Social problems				56.4	6.2	42				60.7	12	39
Attention				58.7	6.9	42				61.2	1	39
Aggression				61.8	8.5	42				64.9	12.9	39
Delinquent				59.2	8.3	42				61.6	11.2	39
<b>School measures</b>												
Child self control				49.7	12.5	42				46.9	11.8	39
<b>SSQ</b>												
No of settings				4.2	4.1	42				4.9	4.1	39
Mean severity				2.2	1.9	42				2.5	2.2	39
<b>SSRS</b>												
Social skills				99.3	13.1	42				94.7	13.7	39
Behaviour				104.3	13.9	42				109.6	15.8	39
Academic				95.8	13.4	42				92.7	13	39
<b>CBCL-TRF</b>												
Withdrawn				54.6	5.5	42				56.5	10.3	39
Anxiety				55.3	7	42				55.9	6.4	39
Social problems				55.4	6	42				58.9	8.3	39
Attention				57.1	8.2	42				58.1	8.5	39
Aggression				58.3	8.3	42				60.4	10.8	39
Delinquent				55.2	6.4	42				57.3	5.6	39
<b>CBCL-DOF</b>												
Internalizing				10.2	8.1	42				9.5	6.9	39
Externalizing				10.1	11.7	42				10.4	9.3	39

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Barkley RA et al 2000

Multi-method psycho-educational intervention for preschool children with disruptive behaviour: preliminary results at post-treatment

Outcome Measure	STC only						Combined					
	Baseline		N	End		N	Baseline		N	End		N
	mean	sd		mean	sd		mean	sd		mean	sd	
<b>Home Measures</b>												
Adaptive behaviour				99.5	13.1	34				98.2	14.2	40
<b>HSQ</b>												
No of settings				7.3	3.2	34				7.6	3.6	40
Mean severity				3.5	1.6	34				3.6	1.7	40
<b>Parenting</b>												
Practices				142	12.8	34				140.7	15	40
Efficacy				28.7	5.8	34				30.1	5.9	40
Satisfaction				37.3	7.5	34				36.6	7.4	40
Stress				73.3	18.1	34				69.1	24.3	40
<b>CBCL</b>												
Withdrawal				54	5.7	34				53.6	5.7	40
Anxiety				54.7	6.5	34				55	6.6	40
Social problems				56.1	7.9	34				58.6	8.4	40
Attention				57.1	6.4	34				59.5	8.5	40
Aggression				59.8	11.1	34				62.1	10	40
Delinquent				58.2	7.4	34				59.5	9.9	40
<b>School measures</b>												
Child self control				52.5	13.6	34				50.6	11.8	40
<b>SSQ</b>												
No of settings				4	4	34				4.2	3.6	40
Mean severity				1.8	1.8	34				2	1.6	40
<b>SSRS</b>												
Social skills				105.5	14.6	34				103.2	10.1	40
Behaviour				100.5	13.1	34				101.6	12.1	40
Academic				94.8	13.7	34				91.2	11.6	40
<b>CBCL-TRF</b>												
Withdrawn				53.3	4.8	34				53.7	4.6	40
Anxiety				54.6	6.9	34				54	5	40
Social problems				55	6.6	34				55.1	6.3	40
Attention				54.9	6	34				55.2	5.2	40
Aggression				55.8	5.8	34				55.7	6.9	40
Delinquent				53.9	5.3	34				54.4	6.4	40
<b>CBCL-DOF</b>												
Internalizing				6.7	4	34				9.3	8.5	40
Externalizing				5.6	7	34				7.6	6.3	40

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Multi-method psycho-educational intervention for preschool children with disruptive behaviour: preliminary results at post-treatment

Outcome Measure	No treatment						PT only					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>CPT</b>												
Commissions				12.9	15.1	42				12.8	8.3	39
Total correct				25.2	5.3	42				24	5.2	39
Off task %				9	15.7	42				9.1	16.9	39
Fidgets %				14.4	14.8	42				16.3	13.6	39
Vocal %				13	18.1	42				11.1	17	39
Out of seat %				11.6	17.8	42				15.8	25	39
<b>Chip sort</b>												
No sorted				314.7	124.3	42				285.3	85.2	39
Off task %				11.9	16.9	42				11.7	16	39
Fidgets %				4.2	6.7	42				2.7	3.4	39
Vocal %				16.9	20.2	42				6.2	20.2	39
Out of seat %				33.5	34	42				38.9	33.6	39
<b>Free play</b>												
Child				16.5	2.5	42				16.9	3.7	39
Mother				18.3	5.7	42				18.2	2.7	39
<b>Task setting</b>												
Child				21.4	5.7	42				22.2	7.8	39
Mother				24.1	4.1	42				24.6	5.6	39
Rating of test behaviour				24.5	7.4	42				27	16.5	39
<b>WJ achievement tests</b>												
Letter identification				93.8	12.6	42				97	12.1	39
Applied problems				98.2	18.2	42				99.8	12.4	39
Dictation				97.1	13.8	42				99.1	10.6	39
Science				109.9	17.4	42				111.1	19.7	39
Social studies				109.2	17.7	42				110.6	18.7	39
Humanities				102.9	10	42				102.5	11.4	39
Broad Knowledge				106.2	13.5	42				107	13.8	39
Academic skills				95.2	14.3	42				98.4	11.3	39

Figures are posttest adjusted means (presumably adjusted for baseline)

N for STC only at posttest = 34 as 3 drop outs

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Date  
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Multi-method psycho-educational intervention for preschool children with disruptive behaviour: preliminary results at post-treatment

Outcome Measure	STC only						Combined					
	Baseline			End			Baseline			End		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>CPT</b>												
Commissions				11.3	13.2	34				7.5	7.7	40
Total correct				23.5	5	34				24.2	4.8	40
Off task %				10	17.3	34				9.8	9.7	40
Fidgets %				13.9	16.1	34				13.5	12.2	40
Vocal %				16.6	24.6	34				11.8	17.6	40
Out of seat %				23.4	26.8	34				16.4	18.5	40
<b>Chip sort</b>												
No sorted				308	140.8	34				302.5	119.6	40
Off task %				15	21.2	34				13	12	40
Fidgets %				3.3	5.7	34				3.4	7.7	40
Vocal %				19.7	26.4	34				11.4	17.1	40
Out of seat %				59.1	35.2	34				39	32.9	40
<b>Free play</b>												
Child				16.7	2.2	34				16.8	2.4	40
Mother				18.4	3.5	34				18.3	3.1	40
<b>Task setting</b>												
Child				21.7	6.7	34				21.2	7.3	40
Mother				24.2	4.5	34				24.5	5.1	40
Rating of test behaviour				24.8	6.1	34				24.7	8.3	40
<b>WJ achievement tests</b>												
Letter identification				98.3	12.3	34				95.6	12.7	40
Applied problems				106	16.6	34				101	15.6	40
Dictation				98.6	11.7	34				96.4	11.8	40
Science				113.9	14.4	34				106.2	13	40
Social studies				110.9	13.2	34				108.8	14.5	40
Humanities				102.6	9.8	34				100.9	10.2	40
Broad Knowledge				107.7	9.9	34				104.4	10	40
Academic skills				99.7	12.9	34				96.2	12.8	40

Figures are posttest adjusted r  
N for STC only at posttest = 34

First author  
Date  
Title

Bernstein GA et al 2005  
School-based interventions for anxious children

Outcome Measure	Child CBT & parent training									Child CBT								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Parent MASC	53.7		15	46.2		15				52.4		17	52.4		17			
Parent SCARED	28		15	19.7		15				23.5		17	23.5		17			
Child MASC	51.5		15	48.7		15				53.6		17	53.6		17			

First author	Bernstein GA et al 2005
Date	
Title	School-based interventions for anxious children

Outcome Measure	No treatment control								
	Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N
Parent MASC	50.5		24	53		24			
Parent SCARED	21.3		24	21.1		24			
Child MASC	51.3		24	49.1		24			



First author  
Date  
Title

Prinz RJ et al 1994  
  
An evaluation of peer coping-skills training for childhood aggression

Outcome Measure	PCS Condition									No PCS Condition								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Observed Communication Effectiveness	0.5999	0.325	42	0.757	0.22	42				0.596	0.351	38	0.579	0.36	38			
Teacher rated communication effectiveness	5.79	3.1	42	9.41	3.6	42				7	2.7	38	8.45	3.3	38			
Teacher rated aggression	76.7	9.9	42	71.2	10.4	42				74.5	9.1	38	74.5	12	38			
Teacher rated social skills	33.3	6.7	42	37.2	7.8	42				33.6	7.7	38	34.1	7.3	38			
Teacher rated Internalizing skills	59.2	8.8	42	57.9	8.1	42				57.8	6.7	38	57.4	7.1	38			
Peer acceptance rating	2.47	0.47	42	2.57	0.7	42				2.62	0.59	38	2.66	0.71	38			

First authorBarrera M et al 2002

Date

TitleEarly elementary school intervention to reduce conduct problems: a randomized trial with Hispanic and non-Hispanic children

Outcome Measure	Intensive I									Weekly W								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N

No change data presented. Effect sizes, F and p values only

First authorBloomquist ML et al 1991

Date

TitleEffects of a school-based cognitive-behavioral intervention for ADHD children

Outcome Measure	Multicomponent									Teacher only									Control								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Child self report</b>																											
<b>Pre / post</b>																											
<i>Piers Harris</i>																											
Behaviour	48	10.46	11	47.78	6.02	11				46.83	6.81	12	47.58	7.94	12				53.9	10.52	13	52.5	8.11	13			
Intellectual & school	51.78	13.19	11	54.33	7.16	11				53.75	6	12	53.58	8.69	12				58.4	11.36	13	57.5	10.66	13			
Anxiety	49.33	7.56	11	51.44	8.56	11				49.82	6.26	12	50.64	8.33	12				55.67	12.08	13	56	8.06	13			
Popularity	45.67	6.04	11	47.44	7.72	11				48.58	10.84	12	43.83	7.93	12				50.1	12.06	13	50.1	13.02	13			
Happiness & satisfaction	51.78	10.05	11	53.22	6.26	11				51.45	8.23	12	53.45	9.75	12				56.22	10.62	13	54.44	10.74	13			
Total	53.11	10.61	11	56.89	7.72	11				51.58	5.59	12	54	8.6	12				60	13.64	13	58.5	10.95	13			
<b>Follow up</b>																											
<i>Piers Harris</i>																											
Behaviour				49.67	10.77	11						50	13.13	12							54.3	11.06	13				
Intellectual & school				52.44	7.42	11						54.67	11.59	12							58.5	11.06	13				
Anxiety				46	11.43	11						52.83	14.15	12							56.6	11.32	13				
Popularity				47.33	9.81	11						47.92	13.44	12							52.6	11.8	13				
Happiness & satisfaction				56.11	10.25	11						50.58	15.29	12							54.2	12.74	13				
Total				53.44	10.35	11						54.42	16.27	12							60.6	13.58	13				

First author Bloomquist ML et al 1991  
Date  
Title Effects of a school-based cognitive-behavioral intervention for ADHD children

Outcome Measure	Multicomponent									Teacher only									Control								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Teacher rating scales</b>																											
<b>Pre / post</b>										12																	
<b>Conners</b>																											
Conduct problems	1.09	0.81	11	0.99	0.7	11				0.77	0.59	12	0.83	0.61	12				1.06	0.7	13	0.93	0.7	13			
Inattention/passivity	2.05	0.38	11	1.5	0.59	11				1.58	0.76	12	1.43	0.84	12				1.85	0.77	13	1.57	0.89	13			
Impulsivity	1.68	0.53	11	1.23	0.55	11				1.88	0.48	12	1.55	0.65	12				2.05	0.45	13	1.61	0.55	13			
Hyperactivity index	1.79	0.53	11	1.41	0.58	11				1.57	0.54	12	1.43	0.66	12				1.75	0.47	13	1.38	0.61	13			
Self-control rating scale	163.5	20.13	11	138	35.38	11				153.6	24.66	12	141.7	29.44	12				169.1	17.96	13	161	20.22	13			
<b>Walker-McConnell</b>																											
Teacher preferred	7.5	3.14	11	7.6	3.06	11				7.33	2.19	12	8.08	2.15	12				6	2.27	13	6.54	1.94	13			
Peer preferred	7.3	3.87	11	7.7	3.47	11				7.17	3.04	12	8.25	2.8	12				6.08	2.43	13	6.85	1.91	13			
School adjustment	6.2	3.12	11	7.1	2.69	11				5.33	1.15	12	6.33	1.92	12				4.38	1.33	13	5.46	2.26	13			
Total	83.5	17.52	11	86.5	15.9	11				82.08	9.11	12	87	11.54	12				76.08	10.28	13	80.54	9.49	13			
<b>Follow up</b>																											
<b>Conners</b>																											
Conduct problems				0.9	0.36	11							0.95	0.67	12							1.2	0.81	13			
Inattention/passivity				1.39	0.43	11							1.43	0.78	12							1.69	1	13			
Impulsivity				1.42	0.39	11							1.79	0.62	12							1.82	0.58	13			
Hyperactivity index				1.37	0.27	11							1.58	0.52	12							1.66	0.71	13			
Self-control rating scale				144.4	13.03	11							149.5	29.91	12							159.2	23.19	13			
<b>Walker-McConnell</b>																											
Teacher preferred				7.4	1.84	11							7.42	2.19	12							5.38	2.33	13			
Peer preferred				7.3	2.83	11							8.08	2.23	12							5.69	2.66	13			
School adjustment				6.5	1.9	11							6.08	2.02	12							5.54	1.71	13			
Total				83.5	11.49	11							85.25	9.64	12							75.85	9.75	13			

First author Bloomquist ML et al 1991  
Date  
Title Effects of a school-based cognitive-behavioral intervention for ADHD children

Outcome Measure	Multicomponent									Teacher only									Control								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Classroom Observation</b>																											
<b>Pre / post</b>																											
percent on task	54.17	0.04	11	54.17	0.06	11				48.47	0.08	12	53.33	0.08	12				49.87	0.08	13	51.92	0.11	13			
percent off task passive	21	0.05	11	17.67	0.06	11				26.8	0.06	12	19.03	0.05	12				23.33	0.07	13	20.9	0.12	13			
percent off task/disruptive	14.67	0.08	11	8.33	0.06	11				9.3	0.03	12	13.05	0.08	12				10.65	0.06	13	10.65	0.08	13			
<b>Follow up</b>																											
percent on task				52.17	0.14	11							53.88	0.09	12							50	0.11	13			
percent off task passive				17.67	0.09	11							16.25	0.06	12							15.38	0.1	13			
percent off task/disruptive				9.83	0.07	11							7.92	0.04	12							10.52	0.1	13			

First author  
Date  
Title

King C et al 1990

An experimental evaluation of a school-based program for children at risk: Wisconsin Early Intervention

Outcome Measure	Full Service									Partial Service								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>CDRS-R factor</b>																		
Behavioural	4.1	1.4	21	3.1	0.7	21				3.5	0.8	25	3.1	0.3	25			
Somatic	8.4	2.7	21	6.7	1.4	21				7.8	1.9	25	6.6	1.7	25			
Mood	6.4	2.3	21	4.2	0.6	21				5.4	1.6	25	5	2.3	25			

#### k-2nd grade

Outcome Measure	Full Service									Partial Service									No service								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>T-CRS factor</b>																											
Acting out	13.5	7	21	12.3	7.1	21				13.6	6.2	32	13.6	5.1	32				13.4	7.2	9	12.4	6.2	9			
Shy/anxious	11.6	4.8	21	12.5	5.8	21				11.5	4.6	32	10.4	3.9	32				12.8	4.9	9	13.6	6.5	9			
Learning	12.8	6.6	21	11.7	5.9	21				15.6	7.9	32	13.7	6.9	32				14.8	7.2	9	11.8	6.2	9			
Frustration tolerance	20.1	3.5	21	20.4	4.3	21				18.4	4.4	32	17.7	5.4	32				18	3.8	9	16.4	4.2	9			
Social skills	19.9	5.1	21	22	4.3	21				19.3	5.7	32	19.4	4.7	32				15.1	4.4	9	15.7	4.6	9			
Task orientation	20.1	6.8	21	21.8	6.1	21				16.6	5.8	32	18	6.4	32				16.8	5.8	9	15.7	4.6	9			

#### 3-4th grade

Outcome Measure	Full Service									Partial Service									No service								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>T-CRS factor</b>																											
Acting out	13.7	6.4	10	13.4	6.2	10				14.7	7.2	25	14	6.1	25				12.8	5.5	11	13.2	5	11			
Shy/anxious	14.9	5.9	10	11.1	3	10				14.3	6.6	25	10.2	4.2	25				11.8	4	11	9.7	3.6	11			
Learning	18.3	4.5	10	17.7	6.9	10				17.6	7.6	25	17.1	1.5	25				13.3	6	11	12.8	4.1	11			
Frustration tolerance	16.2	5.6	10	17.7	4.9	10				16	3.3	25	17.1	4.9	25				17.1	4.3	11	19.8	3.1	11			
Social skills	15.7	6.4	10	16.9	6.1	10				15.5	5.7	25	18.1	5.5	25				19.4	3.2	11	21.6	3	11			
Task orientation	14	3.8	10	12.4	5.2	10				15.4	5.3	25	16	6.6	25				17.9	5	11	20.3	4.5	11			

First author  
Date  
Title

King C et al 1990  
  
An experimental evaluation of a school-based program for children at risk: Wisconsin Early Intervention

Outcome Measure	Full Service									Partial Service									No service								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Sum behaviour problems	58.8	10.7	24	55	12.8	24				58.7	11.6	29	55.1	12.9	29				57.8	9.7	10	54.7	7.8	10			
Internalizing behaviour problems	59.3	9.7	24	54.8	12.6	24				58.2	11.1	29	54.6	11.6	29				57	10.2	10	54.2	9.1	10			
Externalizing behaviour problems	57	10.3	24	53.6	11.5	24				58.7	10.1	29	55.6	12.2	29				57.4	7.4	10	56.4	6.7	10			

First author  
Date  
Title

Lochman, JE et al 2003

Effectiveness of the Coping Power Program and of classroom intervention with aggressive children: outcomes at a 1-year follow-up

Outcome Measure	Both Coping Power cells (CP+CPCL)									Coping Power only (CP)									Coping Power plus Classroom (CPCL)								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Baseline (T1) &amp; 1 yr follow up (T4)</b>																											
Delinquency (self report)				6.4	2.27	120							6.26	1.89	59							6.55	2.61	61			
Substance use (self report)	1.14	0.17	120	1.13	0.11	120				1.13	0.12	59	1.12	0.7	59				1.15	0.21	61	1.15	0.14	61			
School aggression (teacher report)	5.1	2.75	120	3.65	2.03	120				4.62	2.75	59	3.65	2.12	59				5.66	2.69	61	3.66	1.97	61			

Data for CP and CPCL combined ie n=59+61  
Not an independent group



First author  
Date  
Title

Lochman, JE et al 2003

Effectiveness of the Coping Power Program and of classroom intervention with aggressive children: outcomes at a 1-year follow-up

Outcome Measure	Classroom only (CL)									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Baseline (T1) &amp; 1 yr follow up (T4)</b>																		
Delinquency (self report)				6.86	2.91	62							7.15	3.19	63			
Substance use (self report)	1.12	0.07	62	1.12	0.09	62				1.14	0.16	63	1.24	0.32	63			
School aggression (teacher report)	4.33	1.75	62	3.82	2.11	62				4.97	2.15	63	4.38	2.95	63			

First author  
Date  
Title

Lochman JE et al 2002

The Coping Power Program at the middle-school transition: universal and indicated prevention effects

Outcome Measure	Child Intervention									Child & parent intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Baseline (T1) &amp; 1 yr follow up (T3)</b>																		
Covert delinquency (child report)	0.55	0.59	60	0.54	0.59	60				0.59	0.66	60	0.34	0.51	60			
Overt delinquency (child report)	0.65	0.57	60	0.6	0.49	60				0.68	0.51	60	0.57	0.46	60			
Substance use (parent report)				0.31	0.88	60							-0.07	0.44	60			
Substance use (child report)	0.19	0.31	60	0.19	0.35	60				0.13	0.27	60	0.23	0.36	60			
School behaviour improvement				2.86	1.46	60							2.76	1.5	60			

First author  
Date  
Title

Lochman JE et al 2002

The Coping Power Program at the middle-school transition: universal and indicated prevention effects

Outcome Measure	Control								
	Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N
<b>Baseline (T1) &amp; 1 yr follow up (T3)</b>									
Covert delinquency (child report)	0.67	0.65	63	0.6	0.74	63			
Overt delinquency (child report)	0.68	0.5	63	0.56	0.51	63			
Substance use (parent report)				0.37	0.93	63			
Substance use (child report)	0.1	0.24	63	0.15	0.31	63			
School behaviour improvement				2.26	1.41	63			

First author  
Date  
Title

Lochman JE et al 2004

The Coping Power Program for preadolescent aggressive boys and their parents: outcome effects at the 1-year follow-up

Outcome Measure	Indicated & universal									Indicated								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Time 1 &amp; Time 2</b>	61									59								
<b>Substance Use</b>																		
Alcohol, tobacco, marijuana use	0.02	0.14		0.06	0.23					0.12	0.32		0.06	0.24				
<b>Self regulation</b>																		
Aggressive behaviour & internal behavioural processes																		
Proactive aggression	1.39	0.67		1.34	0.56					1.35	0.69		1.26	0.58				
Reactive aggression	2.83	1.12		2.61	0.94					2.57	0.97		2.61	0.88				
Teacher rated aggression	3.08	1.1		2.35	1.05					2.63	0.96		2.55	1.02				
Temperament - fear	3.22	0.97		3.16	0.74					3.46	0.89		3.27	0.76				
Temperament - activity level	4.03	0.7		4.11	0.61					3.96	0.7		4.05	0.49				
Dysregulation	1.18	0.45		1.02	0.47					1.17	0.5		1.06	0.46				
<b>Aggressive behaviour (T2)</b>																		
Proactive Aggression -teacher				6.14	3.3								6.21	3.66				
Reactive aggression - teacher				8.68	4.07								9.19	3.41				
Teacher rated behavioural improvement				3.29	1.47								3.33	1.61				
<b>Social Competence</b>																		
<b>Social behaviour &amp; social cognition</b>																		
Teacher rated social relations	2.96	0.95		2.46	1.17					2.72	1.09		3.16	1.11				
Child social competence	6.26	1.17		6.33	1.12					5.99	1.19		6.3	1.11				
Attributions	5.66	1.24		5.89	1.27					5.96	1.37		6.13	1.37				
Anger	8.06	1.29		8.74	1.42					7.78	1.6		8.7	1.42				
Outcome expectations	2.67	0.76		2.64	0.69					2.48	0.74		2.37	0.69				
Perceived peers' behaviour norm	1.12	0.3		1.15	0.34					1.19	0.44		1.28	0.71				
<b>Social behaviour (T2)</b>																		
Teacher rated social skills				10.12	7.61								8.63	5.59				
Teacher rated problem solving				3.16	1.5								3.3	1.43				
<b>School Bond</b>																		
School Bonding	7.45	1.18		7.68	1.42					7.47	1.67		7.51	1.69				
Child academic competence	3	0.7		3.13	0.59					2.94	0.74		3.07	0.67				
Parent involvement in school	2.39	0.42		2.33	0.45					2.38	0.48		2.32	0.5				
<b>Parenting</b>																		
Harsh parenting	2.18	0.42		2.12	0.49					2.04	0.56		1.97	0.5				
Lack of supportiveness	2.11	0.51		2.05	0.51					1.87	0.49		1.96	0.55				

First author  
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Title

Lochman JE et al 2004

The Coping Power Program for preadolescent aggressive boys and their parents: outcome effects at the 1-year follow-up

Outcome Measure	Universal									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Time 1 &amp; Time 2</b>	62									63								
<b>Substance Use</b>																		
Alcohol, tobacco, marijuana use	0.13	0.48		0.02	0.14					0.02	0.14		0.04	0.19				
<b>Self regulation</b>																		
Aggressive behaviour & internal behavioural processes																		
Proactive aggression	1.37	0.62		1.46	0.77					1.31	0.52		1.38	0.77				
Reactive aggression	2.7	1		2.59	1.01					2.94	0.99		2.65	0.94				
Teacher rated aggression	2.76	0.67		2.35	0.85					2.78	0.62		2.11	0.72				
Temperament - fear	3.15	0.84		3.17	0.73					3.31	0.8		3.02	0.68				
Temperament - activity level	3.94	0.67		3.88	0.65					3.88	0.58		3.9	0.65				
Dysregulation	1.1	0.41		0.98	0.43					1.15	0.37		1.06	0.38				
<b>Aggressive behaviour (T2)</b>																		
Proactive Aggression -teacher				5.55	3.02								4.98	2.5				
Reactive aggression - teacher				8.39	3.53								8.29	3.72				
Teacher rated behavioural improvement				3.28	1.52								3.65	1.55				
<b>Social Competence</b>																		
<b>Social behaviour &amp; social cognition</b>																		
Teacher rated social relations	3.05	0.83		2.55	1.22					2.9	0.85		2.65	1.18				
Child social competence	6.3	1.08		6.33	1.33					6.14	1.09		6.35	1.05				
Attributions	5.94	1.48		5.87	1.24					5.61	1.51		6	1.26				
Anger	7.57	1.31		8.78	1.57					7.91	1.57		8.49	1.32				
Outcome expectations	2.44	0.76		2.55	0.76					2.43	0.65		2.66	0.67				
Perceived peers' behaviour norm	1.12	0.25		1.17	0.36					1.2	0.42		1.28	0.6				
<b>Social behaviour (T2)</b>																		
Teacher rated social skills				9.33	7.17								9.02	7.98				
Teacher rated problem solving				3.14	1.41								3.5	1.54				
<b>School Bond</b>																		
School Bonding	7.69	1.46		7.76	1.34					7.55	1.67		7.55	1.42				
Child academic competence	3.1	0.61		3.17	0.56					3.01	0.62		3.04	0.7				
Parent involvement in school	2.28	0.5		2.28	0.49					2.25	0.49		2.23	0.47				
<b>Parenting</b>																		
Harsh parenting	2.14	0.51		2.1	0.55					2.12	0.61		2.09	0.56				
Lack of supportiveness	1.86	0.46		2.01	0.53					1.99	0.43		1.99	0.54				

First author  
Date  
Title

Lochman JE et al 2004

The Coping Power Program for preadolescent aggressive boys and their parents: outcome effects at the 1-year follow-up

Outcome Measure	Indicated & universal									Indicated								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Follup up.. T3</b>																		
<b>Substance Use</b>																		
Alcohol, tobacco, marijuana use				0.08	0.27								0.04	0.28				
<b>Self regulation</b>																		
Aggressive behaviour & internal behavioural processes																		
Proactive aggression				1.28	0.52								1.29	0.63				
Reactive aggression				2.58	1.04								2.45	0.99				
Teacher rated aggression				2.3	0.91								2.43	1.05				
Temperament - fear				3.08	0.79								3.06	0.73				
Temperament - activity level				4.07	0.59								4	0.59				
Dysregulation				1.02	0.39								1.1	0.5				
<b>Aggressive behaviour (T2)</b>																		
Proactive Aggression -teacher				5.81	3.3								5.94	3.03				
Reactive aggression - teacher				8.05	3.23								9.17	2.78				
Teacher rated behavioural improvement				3	1.89								2.5	1.5				
<b>Social Competence</b>																		
<b>Social behaviour &amp; social cognition</b>																		
Teacher rated social relations				2.54	0.86								2.9	1.02				
Child social competence				6.71	0.94								6.2	1.14				
Attributions				5.81	1.33								5.93	1.43				
Anger				8.45	1.5								8.7	1.54				
Outcome expectations				2.62	0.73								2.57	0.76				
Perceived peers' behaviour norm				1.29	0.54								1.49	0.74				
<b>Social behaviour (T2)</b>																		
Teacher rated social skills				8.34	8.4								7.29	6.8				
Teacher rated problem solving				2.95	1.75								2.48	1.5				
<b>School Bond</b>																		
School Bonding				7.74	1.53								7.34	1.76				
Child academic competence				3.19	0.51								2.93	0.57				
Parent involvement in school				2.02	0.5								2.05	0.6				
<b>Parenting</b>																		
Harsh parenting				2.03	0.47								1.97	0.53				
Lack of supportiveness				1.95	0.52								1.89	0.45				

Ns are given for all groups in total for each outcome but not for groups individually

First author  
Date  
Title

Lochman JE et al 2004  
The Coping Power Program for preadolescent aggressive boys and their parents: outcome effects at the 1-year follow-up

Outcome Measure	Universal									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<b>Follup up.. T3</b>																		
<b>Substance Use</b>																		
Alcohol, tobacco, marijuana use				0.02	0.14								0.17	0.55				
<b>Self regulation</b>																		
Aggressive behaviour & internal behavioural processes																		
Proactive aggression				1.48	0.87								1.4	0.82				
Reactive aggression				2.57	1.05								2.63	1.09				
Teacher rated aggression				2.17	0.9								2.22	0.97				
Temperament - fear				3.19	0.81								2.89	0.57				
Temperament - activity level				3.99	0.62								4.06	0.54				
Dysregulation				1.08	0.47								1.01	0.41				
<b>Aggressive behaviour (T2)</b>																		
Proactive Aggression -teacher				5.82	3.05								6	3.22				
Reactive aggression - teacher				8.59	3.44								8.83	3.64				
Teacher rated behavioural improvement				1.77	1.59								2.55	1.58				
<b>Social Competence</b>																		
<b>Social behaviour &amp; social cognition</b>																		
Teacher rated social relations				2.72	1.04								2.92	1.23				
Child social competence				6.15	1.28								6.41	1.12				
Attributions				6.04	1.08								5.85	1.38				
Anger				8.8	1.35								8.66	1.53				
Outcome expectations				2.64	0.8								2.55	0.74				
Perceived peers' behaviour norm				1.19	0.38								1.48	0.84				
<b>Social behaviour (T2)</b>																		
Teacher rated social skills				3.87	7.75								5.1	8.47				
Teacher rated problem solving				1.93	1.44								2.58	1.47				
<b>School Bond</b>																		
School Bonding				7.57	1.34								7.43	1.74				
Child academic competence				2.99	0.62								3	0.67				
Parent involvement in school				2.04	0.48								2.03	0.46				
<b>Parenting</b>																		
Harsh parenting				2.01	0.5								1.99	0.61				
Lack of supportiveness				2	0.49								2.01	0.53				

Ns are given for all groups in total for each outcome but not

First author Lochman JE et al 1993b  
Date  
Title Effectiveness of a social relations intervention program for aggressive and nonaggressive, rejected children

Postintervention Adjusted means

Outcome Measure	ARI						ARC						RI						RC					
	Baseline		End		Change		Baseline		End		Change		Baseline		End		Change		Baseline		End		Change	
	mear	sd	N	mean	sd	N	mear	sd	N	mean	sd	N	mear	sd	N	mean	sd	N	mear	sd	N	mean	sd	N
<b>Postintervention</b>																								
Teacher Assessments				3.21		9				4.18		9				2.88		17				2.56		17
Aggression				3.61		9				3.05		9				2.94		17				3.2		17
Prosocial				2.41		9				3.01		9				2.98		17				3.1		17
Rejection				1.53		9				3.15		9				2.85		17				2.44		17
Peer assessments/ratings																								
Social preference				-0.63		9				-1.56		9				-0.59		17				-0.51		17
Social acceptance				-0.47		9				-1.55		9				-0.37		17				-0.18		17
Aggression				-0.11		9				0.79		9				0.59		17				0.18		17
Prosocial				-0.36		9				-0.68		9				-0.26		17				-0.27		17
Self worth ratings				2.53		9				2.78		9				2.52		17				3.11		17

follow up Adjusted means

Outcome Measure	ARI						ARC						RI						RC					
	Baseline		End		Change		Baseline		End		Change		Baseline		End		Change		Baseline		End		Change	
	mear	sd	N	mean	sd	N	mear	sd	N	mean	sd	N	mear	sd	N	mean	sd	N	mear	sd	N	mean	sd	N
<b>1 year follow up data</b>																								
Teacher Assessments				2.69		7				3.98		6				2.77		17				2.35		14
Aggression				3.32		7				2.4		6				3.09		17				3.31		14
Prosocial				2.5		7				3.13		6				3.4		17				3.4		14
Rejection				2.26		7				3.06		6				2.43		17				2.37		14
Peer assessments/ratings																								
Social preference				-0.45		7				-1.27		6				-0.6		17				-0.51		14
Social acceptance				-0.23		7				-1.24		6				-0.58		17				-0.74		14
Aggression				-0.03		7				0.97		6				0.24		17				0.45		14
Prosocial				-0.56		7				-0.55		6				-0.24		17				-0.41		14
Self worth ratings				2.96		7				2.57		6				2.74		17				2.76		14



First author  
Date  
Title

Lochman JE et al 1993a  
  
Cognitive-behavioral intervention with aggressive boys: three-year follow-up and preventive effects

Outcome Measure	Anger coping AC									Untreated Aggression UA									Nonaggressive NON								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Substance use				-0.46	1.98	31							1.2	4.34	52							-0.78	2.21	61			
Marijuana involvement				-0.03	0.94	31							0.32	1.18	52							-0.25	0.79	61			
Drug involvement				-0.17	0.72	31							0.3	1.33	52							-0.17	0.71	61			
Quantity-frequency index for alcohol				-0.1	0.69	31							0.28	1.44	52							-0.19	0.53	61			
Negative consequences of alcohol use				-0.17	0.59	31							0.3	1.34	52							-0.17	0.75	61			
General behaviour deviance				0.12	1.01	31							0.24	1.06	52							-0.26	0.89	61			
Crimes against persons				0.31	1.25	31							0.17	1.09	52							-0.03	0.66	61			
General theft				-0.12	0.48	31							0.04	0.97	52							0.03	1.2	61			
Self esteem				0.21	1.8	31							-0.59	1.58	52							0.39	1.73	61			
General				-0.04	0.99	31							-0.14	0.93	52							0.14	1.06	61			
Home				0.25	0.97	31							-0.45	0.96	52							0.25	0.92	61			
Social problem solving				0.13	1.26	31							-0.45	1.64	52							0.32	1.22	61			
Relevant solutions				-0.05	0.93	31							-0.06	0.96	52							0.08	1.08	61			
Irrelevant solutions				-0.19	0.75	31							0.39	1.28	52							-0.24	0.7	61			
Off task classroom behaviour				0.57	1.79	31							0.4	1.6	52							-0.63	1.21	61			
Passive				0.23	1.09	31							0.29	1.01	52							-0.37	0.83	61			
Disruptive				0.34	1.19	31							0.11	0.92	52							-0.26	0.91	61			

First author  
Date  
Title

Conduct Problems Prevention Research Group 1999

Initial impact of the FAST TRACK prevention trial for conduct problems: 1 the high risk sample

Baseline=kindergarten, End = Grade 1

Outcome Measure	Control Group									Intervention Group								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<i>Child social cognition and reading</i>																		
Emotional recognition	10.61	2.85	411	12.14	2.46	411				10.73	2.79	416	12.91	2.71	416			
Emotional coping	0.94	0.67	426	1.06	0.65	426				0.9	0.62	229	1.14	0.65	229			
Social problem solving	0.63	0.22	420	0.67	0.18	420				0.61	0.22	424	0.7	0.17	424			
Hostile attributions	0.67	0.26	421	0.67	0.25	421				0.67	0.25	426	0.66	0.24	426			
Aggressive retaliation	0.42	0.32	421	0.35	0.27	421				0.43	0.31	426	0.31	0.26	426			
<i>Reading achievement</i>																		
Woodcock letter word ID	12.06	3.44	145	22.11	6.47	145				12.81	4.91	151	23.34	6.35	151			
Spache Word attack				-0.15	0.99	276							0.15	0.73	275			
Language arts grades				5.84	4.07	418							6.52	3.96	419			
<i>Child peer relations and social competence</i>																		
Time in positive peer interaction				0.46	0.19	418							0.5	0.21	425			
Peer social preference				-0.63	0.96	389							-0.47	0.97	420			
Peer nominated prosocial				-0.43	0.66	389							-0.35	0.68	420			
Teacher rated social competence				42.25	23.17	241							40.3	18.45	246			
Parent rated social competence	2.45	0.72	425	2.44	0.72	425				2.45	0.71	405	2.41	0.68	405			
<i>Parenting behaviour</i>																		
<i>Harsh discipline</i>																		
PQ	1.04	0.57	424	0.97	0.53	424				0.97	0.52	428	0.94	0.48	428			
Vignettes:Physical punishment	0.21	0.2	425	0.17	0.17	425				0.18	0.18	429	0.14	0.16	429			
CII/BCS	0.06	0.73	275	0.02	0.72	275				-0.4	0.58	276	-0.06	0.59	276			
<i>Warmth/positive involvement</i>																		
PQ	2.42	0.51	424	2.41	0.49	424				2.51	0.49	428	2.48	0.5	428			
CII/BCS/IRS	0.01	0.59	276	-0.06	0.58	276				0.07	0.57	276	0.09	0.58	276			
<i>Appropriate/consistent discipline</i>																		
PQ	2.52	0.62	424	2.61	0.6	424				2.55	0.62	428	2.6	0.59	428			
CII	2.25	0.39	275	2.26	0.39	275				2.25	0.38	276	2.34	0.39	276			
BSC	0.03	1.68	276	-0.12	1.71	276				-0.08	1.64	274	-0.02	1.58	274			
<i>Learning and school involvement</i>																		
Encourage learning	1.97	0.73	425	1.99	0.78	425				2.04	0.75	427	2.05	0.76	427			
PTI teacher	1.29	0.68	383	1.24	0.73	383				1.22	0.69	378	1.34	0.64	378			

First author  
Date  
Title

Conduct Problems Prevention Research Group 1999

Initial impact of the FAST TRACK prevention trial for conduct problems: 1 the high risk sample

Baseline=kindergarten, End = Grade 1

Parent ratings of behaviour change				1.650.77278						1.960.66278								
Outcome Measure	Control Group									Intervention Group								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<i>Parent social cognition</i>																		
<i>Attitudes toward the child</i>																		
PQ/developmental history	3.73	0.57	425	3.77	0.53	425				3.73	0.51	429	3.76	0.55	429			
Interviewer developmental history	3.55	0.82	425	3.57	0.89	425				3.54	0.85	428	3.66	0.84	428			
Educational values (PTI teacher)	2.09	0.98	381	2.21	1.15	381				2.06	1.02	378	2.33	1.03	378			
Parent change: satisfaction/difficulty				1.61	1.02	277							1.82	1.04	278			
<i>Child aggressive disruptive behaviour</i>																		
CBCL externalising T score	61.31	8.72	426	62.76	9.39	426				61.64	9.24	428	62.68	9.25	428			
Parent daily report problem score	0.5	0.15	420	0.51	0.16	420				0.49	0.15	426	0.49	0.16	426			
Parent rating of child behaviour change				1.37	0.8	276							1.62	0.73	277			
TRF externalising T score	66.29	10.75	377	64.55	10.76	377				66.31	10.72	373	64.55	11.07	373			
Teacher TOCA-R authority acceptance scale				1.92	1.16	425							1.95	1.12	435			
Teacher rating of behaviour change				1	1	273							1.33	0.85	279			
Peer nominated aggression				0.66	1.25	389							0.79	1.28	420			
Observed acts of aggression				0.09	0.11	418							0.1	0.14	425			
Observer TOCA authority acceptance scale				0.62	0.64	418							0.5	0.51	425			
Special educational services				31.93	157.6	414							10.92	92.45	421			
<i>Parent child interaction</i>																		
Warmth/affection/gratification (CII/IRS)	3.53	0.61	276	3.52	0.63	276				3.56	0.61	275	3.61	0.6	275			
Noncompliance/aggression (CII/BCS)	-0.01	0.73	275	-0.09	0.63	275				0.02	0.69	276	-0.01	0.69	276			

First author Conduct Problems Prevention Research Group 1999  
 Date  
 Title Initial impact of the FAST TRACK prevention trial for conduct problems: 1 the high risk sample

Baseline=kindergarten, End = Grade 1

First author Conduct Problems Prevention Research Group 2002  
 Date  
 Title Evaluation of the first 3 years of the FAST TRACK prevention trial with children at high risk for adolescent conduct problems

Adjusted means at end of grade 3

Outcome Measure	Control									Intervention								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
<i>Child conduct problems</i>																		
TRF externalising T score				62.7		446							62.65		445			
TOCA-R authority acceptance				1.88		446							1.7		445			
Peer nominated aggression				0.63		446							0.77		445			
Teacher rating of behaviour change				0.87		446							1.11		445			
Parent rating of child behaviour change				1.09		446							1.27		445			
Parent daily report				0.22		446							0.2		445			
Special educational diagnosis				0.46		446							0.4		445			
				0.15		446							0.17		445			
<i>Child Social Cognition</i>																		
Competent problem solving %				0.72		446							0.74		445			
Hostile attributions %				0.64		446							0.61		445			
<i>Child Academic Progress</i>																		
Spache reading				-0.02		446							0.03		445			
Math grade				7.81		446							7.89		445			
Language arts grade				7.78		446							7.7		445			
<i>Child social competence</i>																		
Peer social preference				-0.57		446							-0.55		445			
Peer prosocial Nominations				-0.49		446							-0.47		445			
Parenting Behaviour																		
PQ Parental competence				2.72		446							2.75		445			
Vignettes:Physical punishment				0.13		446							0.1		445			
Parent rating of parenting change				1.46		446							1.61		445			
Teacher rated parent involvement with school				2.16		446							2.15		445			

First author

August GL et al 2001

Date

Title

An integrated components prevention for aggressive elementary school children: the early risers program

Outcome Measure	Intervention									Control								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
Baseline & Posttest1																		
Academic competence	-1.13	0.76	124	-0.99	0.99	124				-1.06	0.7	121	-1.13	1.05	121			
Self regulation problems	1.3	0.91	124	0.79	0.86	124				1.3	0.84	121	0.92	0.96	121			
Aggression composite	1.31	1.08	124	0.81	0.95	124				1.39	1.08	121	0.97	1.07	121			
Hyperactivity composite	1.35	1.05	124	0.89	1	124				1.29	0.95	121	0.88	1.07	121			
Impulsivity composite	1.2	0.94	124	0.75	0.98	124				1.21	0.9	121	0.91	1.02	121			
Social competence	-0.64	0.65	124	-0.35	0.69	124				-0.73	0.58	121	-0.48	0.65	121			
Social skills composite	-0.5	0.7	124	-0.24	0.7	124				-0.57	0.61	121	-0.36	0.7	121			
Adaptability composite	-0.77	0.72	124	-0.65	0.77	124				-0.9	0.75	121	-0.66	0.69	121			
Parent investment	-0.41	0.6	124	-0.29	0.69	124				-0.33	0.64	121	-0.24	0.64	121			
Nurturance competence	-0.52	0.64	124	-0.39	0.77	124				-0.44	0.76	121	-0.37	0.74	121			
Distress composite	0.28	0.89	124	0.17	0.98	124				0.14	0.86	121	0.05	0.8	121			
Discipline composite	-0.4	0.82	124	-0.36	0.8	124				-0.41	0.99	121	-0.32	0.95	121			
Posttest 2																		
Academic competence				-0.96	1.06	124							-1.13	1.02	121			
Self regulation problems				0.82	0.81	124							0.9	0.95	121			
Aggression composite				0.78	0.88	124							0.83	1.05	121			
Hyperactivity composite				0.83	1.02	124							0.84	1.1	121			
Impulsivity composite				0.87	0.92	124							0.95	1.09	121			
Social competence				-0.47	0.68	124							-0.6	0.67	121			
Social skills composite				-0.34	0.73	124							-0.44	0.74	121			
Adaptability composite				-0.71	0.71	124							-0.63	0.83	121			
Parent investment				-0.35	0.62	124							-0.34	0.7	121			
Nurturance competence				-0.52	0.72	124							-0.53	0.89	121			
Distress composite				0.19	0.86	124							0.08	0.85	121			
Discipline composite				-0.25	0.86	124							-0.29	1.01	121			

First author  
Date  
Title

Tremblay RE et al 1991  
  
Can disruptive boys be helped to become competent?

Mean scores among groups on mothers' ratings (1984 as covariate)

Outcome Measure	Treatment									Control									Observation								
	Baseline			End			Change			Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N
1987																											
Disruptive behaviour				13.3		35							10.4		30							11		76			
Fights				2.8		35							1.8		30							1.9		76			
Inattentive				5.3		35							4.6		30							4.5		76			
Prosocial				10		35							11		30							10.7		76			
1988																											
Disruptive behaviour				11.5		38							10.4		31							10.8		76			
Fights				2.3		38							1.7		31							2		76			
Inattentive				4.8		38							4.6		31							4.1		76			
Prosocial				10.1		38							11.1		31							10.5		76			
1989																											
Disruptive behaviour				10.6		35							9.2		29							10		72			
Fights				1.8		35							1.3		29							1.8		72			
Inattentive				4.7		35							4.3		29							4.2		72			
Prosocial				9.7		35							10.9		29							11.2		72			

First author  
Date  
Title

Aber JL et al 1994  
The evaluation of the Resolving Conflict Creatively Program: an overview

Outcome Measure	Intensive I									Weekly W								
	Baseline			End			Change			Baseline			End			Change		
	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N	mean	sd	N

No change data presented

First author	Date	Title
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[illegible]