

ATTORNEY-
GENERALS
DEPARTMENT

A META-EVALUATION OF METHODS AND
APPROACHES TO REDUCING BULLYING IN
PRE-SCHOOLS AND EARLY PRIMARY SCHOOL
IN AUSTRALIA

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A meta-evaluation of methods and approaches to reducing bullying in pre-schools and in early primary school in Australia

Attorney-General's Department, Canberra

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CONTENTS

| | |
|--|----|
| 1. EXECUTIVE SUMMARY | 1 |
| 1.1 Introduction | 1 |
| 1.2 Findings from the meta-evaluation | 1 |
| 1.3 Implications for reducing bullying among young children in Australia | 3 |
| 2. INTRODUCTION AND BACKGROUND | 4 |
| 2.1 Defining bullying | 4 |
| 2.2 Empirical investigations of bullying in schools | 5 |
| 2.3 Bullying among young children | 5 |
| 3. AUSTRALIAN INITIATIVES TO COUNTER BULLYING IN SCHOOLS | 7 |
| 3.1 Government authorities | 7 |
| 3.2 Initiatives taken by schools and centres | 7 |
| 3.3 Initiatives by project groups | 8 |
| 3.4 Organisations supporting anti-bullying initiatives in schools | 8 |
| 3.5 Other contributions assisting anti-bullying initiatives | 8 |
| 4. ASSESSING THE EFFECTIVENESS OF INTERVENTIONS | 10 |
| 4.1 Selecting studies for meta-evaluation | 10 |
| 4.2 Studies selected for meta-evaluation | 11 |
| 5. EVALUATIONS OF INTERVENTIONS TO REDUCE BULLYING IN SCHOOLS | 12 |
| 5.1 The programs | 12 |
| 5.2 The range of outcomes | 12 |
| 5.3 Generality/specificity of intervention effects | 12 |
| 5.4 Intervention effects in relation to children's ages | 12 |
| 5.5 Reductions in children being bullied in kindergartens | 13 |
| 5.6 Reductions in both being bullied and bullying others | 13 |
| 5.7 Reductions in being bullied unaccompanied by reductions in bullying others | 13 |
| 5.8 Increases in bullying in the absence of interventions | 14 |
| 5.9 Difficulties in identifying crucial components of multi-faceted programs | 14 |
| 5.10 The contribution of curricular activities | 14 |
| 5.11 The contribution of teaching method | 14 |

| | | |
|------|--|-----------|
| 5.12 | The contribution of on-going external support in implementing anti-bullying programs | 15 |
| 5.13 | Changes in awareness of bullying | 15 |
| 5.14 | The factor of gender | 15 |
| 5.15 | Post-hoc evaluations | 16 |
| 5.16 | Parents and teachers working together | 16 |
| 5.17 | The extent to which programs were actually applied | 16 |
| 6. | IMPLICATIONS FOR INTERVENTIONS WITH YOUNG CHILDREN IN AUSTRALIAN SCHOOLS | 17 |
| | APPENDICES | 19 |
| | Appendix 1 Government and school initiatives | 19 |
| | Appendix 2 Australian projects addressing bullying in schools | 23 |
| | Appendix 3 Contributions of publications addressing bullying in schools and pre-schools | 26 |
| | Appendix 4 Evaluations of programs to counter bullying in schools | 33 |
| 1. | The Bernese Study, Switzerland | 33 |
| 2. | The Chicago Study, United States | 38 |
| 3. | The Toronto Study, Canada | 39 |
| 4. | The Sheffield Cooperative Learning Study, Sheffield, England | 41 |
| 5. | The Finland Study, Turku and Helsinki | 42 |
| 6. | The Texas Study, United States | 44 |
| 7. | The Norwegian Study, Norway | 46 |
| 7a. | The Norwegian Project as evaluated in the Bergen sample (the Bergen evaluation study) | 48 |
| 7b. | The Norwegian Project as evaluated in the Rogaland sample (the Rogaland evaluation study) | 49 |
| 8. | The Sheffield Study, England | 50 |
| 9. | The Home Office Study, Liverpool and London, England | 52 |
| 10. | The Seville Study, Spain | 53 |
| 11. | The Flanders Study, Belgium | 55 |
| 12. | The New South Wales Study, Australia | 58 |
| | Appendix 5 Summary of evaluations | 60 |
| | REFERENCES | 63 |

1; EXECUTIVE SUMMARY

1.1 Introduction

The general purpose of this report is to evaluate actions and plans to prevent or reduce bullying among children in Australian pre-schools, in kindergartens and in early primary school, and to do so especially in the light of a meta-evaluation of accounts of relevant interventions that have been undertaken worldwide.

Bullying is commonly defined as a form of aggressive behaviour in which there is an imbalance of power favouring the perpetrator(s). Moreover, the behaviour is regarded as unjustified, typically repeated, and experienced by the target of the aggression as oppressive, and by the perpetrator as enjoyable. A short definition of bullying is 'the systematic abuse of power'.

The problem of bullying in Australian schools was first examined in the early 1990s, following some research conducted earlier in Norway that had shown that bullying among school children could be significantly reduced. Australian studies confirmed that bullying was prevalent in Australia among children of all ages, including those attending schools and centres in lower primary, kindergartens and pre-schools, where (as among older students) it has been shown to take physical, verbal and indirect forms, as in deliberately and repeatedly excluding someone.

Since 1994 there have been numerous initiatives taken by Australian government bodies at both Federal and State level to promote activities designed to reduce bullying. In addition, project groups have worked with schools to implement programs; organisations concerned with child welfare have encouraged and supported anti-bullying activities in schools; numerous books and websites have been produced to suggest ways bullying can be addressed; and many schools in Australia have devised and implemented policies and strategies to help stop bullying.

However, some of the advice provided to educators in addressing bullying is not consistent or research-based. Most notably, some authorities recommend an entirely preventative and non-interventionist mode of countering bullying, while others advise that appropriate non-physical sanctions in accordance with clearly defined rules of behaviour need to be imposed upon those who bully others.

12 Findings from the meta-evaluation

Assessing the effectiveness of approaches to countering bullying is based upon evaluative studies conducted for the most part outside Australia. For this report 13 such studies were selected as meeting rigorous research criteria which enabled them to reach conclusions about the effectiveness of programs of intervention. These included studies conducted in Switzerland, USA, Canada, England, Finland, Norway, Spain, Belgium and Australia. In conducting a meta-evaluation, the main focus was upon work involving young children, as in the Bernese study, of an intervention to reduce bullying in kindergartens. Other studies with older children were included, however, since the approaches they describe were in some respects similar to those used with younger children.

The programs that were evaluated typically comprised a variety of components, involving actions to be undertaken at different levels, such as the school, the classroom, individual children and parents. One, however, focused specifically on providing

relevant curriculum material to counter bullying and another on the employment of cooperative learning as a teaching method. A further program provided a multifaceted program but enabled alternative means of assisting schools to implement a program to be evaluated.

The outcomes from the evaluations reviewed were, with several exceptions, positive in reducing overall bullying behaviour. However, the success of schools in reducing bullying was, in general, not high. Although some outcomes were very positive, for example, involving approximately 50 per cent reduction in bullying, most were considerably less successful and a few were not successful. One study with kindergarten children suggested that reducing the occurrence of some forms of bullying, for example, physical bullying, may be more readily accomplished than others, for example, verbal bullying.

The reductions were found to occur more consistently in studies of children of primary and pre-primary ages than of older children. Results for the two studies with kindergarten children each reported reductions in aggressive interpersonal behaviour.

Reductions in both being bullied and in bullying others were reported in some studies; but more commonly the reductions were confined to reductions in the proportions of children being bullied. This suggests that some interventions may result in a smaller proportion of students being bullied by a relatively large number of their peers.

There was evidence from results from control groups composed of students with whom programs were not implemented, that, in the absence of interventions, bullying tends to increase.

Given the variety of components employed in most interventions, it was generally not possible to determine which one(s) were crucial or whether a combination of elements was responsible for the reported effects.

However, a study of specific techniques, as opposed to generalised programs, reported positively on the use of curriculum content including lessons on anger management, impulse control and the encouragement of empathic feelings in reducing observed aggressive behaviour in kindergarten children.

The use in one study of a cooperative learning approach as a teaching technique was not shown to have consistently positive effects in reducing bullying behaviour,

Results from a study comparing the implementation of programs suggest that interventions are no more likely to be successful if schools or centres are continually supported by researchers. A degree of autonomy or ownership of the intervention appears to be needed.

In one study, following the implementation of a program, awareness of bullying at school was found to have increased without there being a corresponding increase in knowledge of what constituted bullying.

The extent to which programs led to a reduction in bullying was not found to differ in a consistent way for boys and girls. Nevertheless, there was some evidence that reductions in bullying among girls may be relatively short-term, and that girls are generally more appreciative than boys of programs designed to reduce bullying.

Programs typically require teachers and parents to work together in reducing bullying. However, the significance of parental involvement has not been specifically evaluated.

Feedback from participants reflected on positive features of the program, including efforts directed towards the democratic management of social relationships and the outstanding value of a student anti-bullying committee.

The commitment of a school to a program and strong involvement by staff in its implementation appears to be an important and possibly crucial factor in reducing bullying.

13 Implications for reducing bullying among young children in Australia

Findings from evaluated programs have implications for addressing bullying in Australian schools and pre-schools. Bullying behaviour can be reduced by well-planned interventions. The likelihood of success appears to be greater when programs are implemented with younger students attending kindergartens and primary school. In the absence of programs to reduce bullying, increases tend to occur over time. Many schools and centres in Australia are currently implementing practices that have been employed in well-evaluated effective anti-bullying strategies. Nevertheless, their use does not guarantee success. Moreover, it is currently unclear from research which approaches to reducing bullying, for example, a so-called 'no-blame approach' or one emphasising rules and the use of negative sanctions, are likely to be more effective. Possibly each may be applied, depending upon particular circumstances. Providing continual external support for schools or centres in the implementation stage of a program may not be helpful. The degree of teacher commitment to a program and community involvement in carrying it out is an important factor in determining success. Finally, given that Australia is currently reliant upon evaluative studies undertaken overseas for suggestions about effective programs for preventing or reducing bullying among young children in Australian pre-schools, kindergartens and early primary school, it is desirable that studies be conducted in Australia which are culturally relevant.

2. INTRODUCTION AND BACKGROUND

Over the past 10 years there has been a growing recognition in Australia, as in many other parts of the world, of the widespread prevalence and serious harmfulness of bullying in schools (Smith et al 1999; Rigby 2001b, 2002). Increasingly, attention has turned to devising and implementing policies and practices intended to reduce levels of bullying and harassment. A great deal has been written on how this might be done. Many schools across Australia now have anti-bullying policies and are employing a range of approaches and methods to address the issue (see Appendices 1 and 2).

There has, however, been comparatively little research undertaken to assess and evaluate the effectiveness of anti-bullying initiatives in Australian schools, especially among younger students attending pre-school and early primary school. In fact, of the interventions in schools to reduce bullying that have been rigorously evaluated (reviewed in Appendix 4) only one has so far been conducted in Australia. In view of the importance of early intervention strategies in countering anti-social tendencies (NCP 1999), the need for an evaluation of what is being done and what can be done in Australian schools to address bullying among young people is evident. Accordingly, the Crime Prevention Branch of the Commonwealth Attorney-General's Department has commissioned this report with these objectives:

- to establish which strategies or combinations of strategies in Australia and overseas have been successfully employed to prevent and reduce the incidence of bullying in schools
- to identify and evaluate, with scientific rigour, effective practices and directions for policy which can be employed by Australian schools and relevant agencies for the purpose of implementing these strategies.

In order to achieve these objectives, it was considered desirable to review initiatives that have been undertaken to counter bullying in Australian schools; to examine national and international literature to identify factors relevant to success; and in the light of a meta-evaluation of relevant studies, to provide critical analyses and commentary on work that has been done and could be done to effectively address the problem of bullying, especially among young children in Australian schools.

2.1 Defining bullying

In assessing the prevalence of bullying and the effectiveness of interventions to reduce it, much depends on how the term 'bullying' is defined. There is no standard or universally accepted definition. Nevertheless, some progress has been made toward a consensus regarding what elements should be included in an acceptable definition. An early definition of bullying by Tattum and Tattum (1992) as 'the desire to hurt or put someone under pressure' is now generally regarded as inadequate as a complete definition and to constitute only one element of bullying. Bullying is now regarded as a distinct form of aggressive behaviour, and not as aggressive behaviour in general. It is seen as occurring in situations in which aggressive behaviour is being deliberately practised by a person or group more powerful than the individual(s) being targeted. Further, it is seen as unjustifiable behaviour. There is some controversy over whether an action needs to be repeated before it can reasonably be called 'bullying', but few, if any, would disagree that bullying typically involves repeated behaviour.

What is conceived as constituting bullying behaviour has expanded over the past few years. It had been conceived narrowly as involving physically threatening behaviour

only. It is now generally seen as including verbal forms of aggression, as in the case of ridicule and name calling. More recently it has become customary among researchers and educators to include indirect or so-called relational aggression as aspects of bullying behaviour - for example, deliberate exclusion or the spreading of destructive rumours.

In evaluating programs that have addressed bullying, the question of how bullying has been defined is an important one. It is sometimes the case that aggressive behaviour and bullying behaviour have not been adequately distinguished. In the school context both may be seen as undesirable, but the latter (in which an imbalance of power is postulated) is now receiving special attention and will be the primary focus of this report.

In summary, bullying is now generally seen as having these elements: a desire to hurt; the perpetration of hurtful behaviour (physical, verbal or relational) in a situation in which there is an imbalance of power favouring the perpetrators); the action being regarded as unjustified, typically repeated, and experienced by the target of the aggression as oppressive, and by the perpetrator as enjoyable. A short and useful definition of bullying describing its essential nature has been proposed by Smith and Sharp (1994) as 'the systematic abuse of power'.

2.2 Empirical investigations of bullying in schools

The systematic study of bullying in schools is a relatively recent development. It owes its origins mainly to the work of Professor Dan Olweus who, beginning in the late 1970s, undertook a series of studies of bullying behaviour in Scandinavian schools. This included, in the 1980s, reports on a major project supported by the Norwegian government designed to reduce bullying among schoolchildren in all schools in Norway. Inspired by this work, which resulted in a reported 50 per cent reduction in peer victimisation, researchers in other countries carried out studies to shed further light on the nature and causes of school bullying. Subsequently, a number of other similar interventions have been undertaken and evaluated (see Appendix 4).

The first systematic empirical study of bullying in schools in Australia, drawing upon reports from children in South Australia, was published in the early 1990s (Rigby and Slee 1991). From this it was clear that bullying was prevalent in Australian primary and secondary schools. Six years later, results from a large scale national survey of more than 38,000 schoolchildren between 7 and 17 years established that approximately one child in six was bullied by peers each week in Australian schools (Rigby 1997b). To date, no comparable study has been published in relation to Australian children under 7 years old in schools or pre-schools.

2.3 Bullying among young children

It is widely acknowledged that bullying is prevalent among older students from middle primary school onwards. For children attending kindergarten 'bullying' is sometimes seen as an inappropriate term to describe their negative interpersonal behaviour. Some authorities on early education have denied that bullying takes place between children of kindergarten age and that systematic intervention to prevent or stop it is therefore unnecessary (see Main 1999).

Empirical studies in a number of countries, however, have demonstrated that some kindergarten children do deliberately engage repeatedly in aggressive behaviours

directed towards peers who are in a given situation less powerful than they are. That is, they engage in bullying. In their study of children attending kindergartens in Berne, Switzerland, Alsaker and Valkanover (2000) reported that approximately 16 per cent of the children aged 5 to 7 years 11 months could be classified as victims or bully/victims, the latter being children who were victimised and also bullied others. Their estimate of the prevalence of bullying in kindergartens is similar to the one provided by Kochenderfer and Ladd (1996) in their study of peer victimisation in kindergartens in mid-western United States. In that study the researchers calculated that 18 per cent of the children could be classified as victims, It has also been reported that bullying is prevalent in Australian kindergartens. Following an observational study conducted at four early childhood centres in Canberra, Australia in 1994, graphic evidence was presented of both physical and verbal bullying, perpetrated mainly by boys and frequently ignored by kindergarten staff (Main 1999).

Bullying among young children has been found to take forms similar to bullying among older children, and can include indirect forms. Kochenderfer and Ladd (1996) reported that kindergarten children were often painfully aware of being the butt of malicious gossip. Crick et al (1997) have reported that kindergarten children are sometimes targeted by so-called relational aggression (a socially manipulative way of hurting people). Alsaker and Valkanover (2000) reported that in their sample of kindergarten children, there were those who complained of being deliberately isolated or excluded by other children.

3. AUSTRALIAN INITIATIVES TO COUNTER BULLYING IN SCHOOLS

Initiatives to counter bullying in schools have been taken by government authorities, individual schools and centres, project groups, welfare organisations and authors of publications on bullying.

3.1 Government authorities

Responses by Australian Government authorities to the problem of bullying date back to 1994 when the Commonwealth Government published a major report known as *Sticks and Stones*, compiled by a committee of the House of Representatives. In this report there was an examination of violence in schools and a recognition of the need to address the problem of bullying among schoolchildren. Other government and educational institutions have responded by providing suggestions and advice to schools on how to address the problem. (These government initiatives are reviewed in Appendix 1 of this report).

3.2 Initiatives taken by schools and centres

Currently many schools and pre-schools are taking steps to reduce bullying behaviour between children, as evidence has continued to grow regarding the harmfulness of bullying behaviour to the mental and physical health of Australian children. At this stage, however, it is not possible to estimate accurately the proportion of schools that are engaged in specifically anti-bullying activities. Schools throughout Australia are being encouraged by educational authorities to implement anti-bullying strategies and practices, but, with the exception of the Education Department of Victoria, there is no official requirement that schools report on what they have done each year to target bullying.

A range of anti-bullying activities is being undertaken in Australian schools. These include:

- awareness raising through the use of self-report questionnaires answered by students, teachers and parents to assess the nature, prevalence and consequences of bullying; the development of specific anti-bullying policies
- provision of instruction and activities in the school curriculum to enable bullying to be addressed among children in classrooms
- use of drama to help children to understand the nature of bullying and to handle bullying more effectively
- formation of discussion groups in which parents are involved to examine the issue of bullying
- use of counselling methods to work with children involved in bully/victim problems
- empowerment of children to help eliminate bullying, for example, through Peer Support Programs and Anti-Bullying Committees of students, and the training for students in methods of conflict resolution and peer mediation. (These approaches are commonly modified in accordance with age and maturity of students).

Variations between schools and centres may be found in the choice of approaches and strategies. For example, some choose to see anti-bullying work as being entirely contained within Behaviour Management Policy; others see anti-bullying more broadly as, for example, including social skills training, education in human relations through classroom work, and counselling procedures. Some schools rely primarily on the use of negative sanctions being applied to children who bully others; others employ the use of 'no-blame' approaches in which the focus is upon promoting changes in behaviour through non-punitive means. (Further details are given in Appendix 1.)

3.3 Initiatives by project groups

A number of project groups have helped, and are helping, schools to address bullying. These include the Peer Support Organisation; MindMatters; the Friendly Schools Project; the Program for Reintegration and Individual Shame Management (PRISM); and Program Achieve. (These initiatives are described in Appendix 2.)

3.4 Organisations supporting anti-bullying initiatives in schools

These bodies have been concerned especially with the welfare of children. They have supported actions to eliminate bullying in schools and provided much advice and encouragement to promote anti-bullying initiatives. They include parent bodies such as the South Australian Association of School Parents' Clubs (SAASPC); groups concerned with child abuse, such as the National Association for the Prevention of Child Abuse and Neglect (NAPCAN), Advocates for Survivors of Child Abuse (ASCA); Safety House Australia Inc., and Kids Help Line. Each of these organisations has provided advice on countering bullying in schools.

3.5 Other contributions assisting anti-bullying initiatives

Some individual Australians have figured prominently as authors and consultants in providing advice and assistance to schools. Publications authored by Berne (1996), Linke (1998), Griffiths (1996), Field (1999), Lewers and Murphy (2000), Slee (2000), Suckling and Temple (2001) and Rigby (1996, 2001a) have been influential in determining what some Australian schools do to counter bullying. Some texts published overseas have helped to shape how Australian schools have responded to bullying; publications on bullying by Olweus (1993), Smith and Sharp (1994) and Garrity et al (1997) have made particularly important contributions.

A critical examination of the literature on bullying that is available to Australian teachers (see Appendix 3) indicates that despite general agreement on the nature and harmfulness of bullying, the advice given is often inconsistent. This is especially true of advice on methods of intervention, some of which promotes a rule-based 'consequences' approach in which sanctions are imposed on children who have bullied others, while some advice promotes an exclusively preventative approach or recommends interventions utilising nonjudgmental or 'no-blame' methods.

Although some centres providing teacher training are currently providing information about bullying in schools, the education of Australian teachers about bullying has proceeded mainly through in-service training, organised by various bodies, including state educational authorities, the Australian Council for Educational Research and by individual schools or clusters of schools. Visiting overseas experts on bullying who have

run seminars and workshops for Australian teachers have also made considerable impact on the policies and practices that schools subsequently adopted. These include Delwyn Tattum (from Wales), Valerie Besag and Sonia Sharp (from England) and Professor Anatol Pikas from Sweden. Increasingly, such seminars and workshops have been led by Australian workers in the field of bullying in schools. Journals and magazines providing professional reading for teachers have been active in helping schools to handle bullying more effectively. These include the *Professional Reading Guide for Educational Administrators*, *Principal Matters*, *Primary Focus*, *EQ Australia* and *Social Spectrum*.

4. ASSESSING THE EFFECTIVENESS OF INTERVENTIONS

A prime objective of this report is to 'identify and evaluate, with scientific rigour, effective practices and directives which can be employed by Australian schools, parents and relevant agencies...' to address bullying. It should be noted that with one single exception, no published study has so far provided a basis for making a rigorous evaluation of effective practice to reduce bullying in Australian schools. The exception is an evaluation of an intervention with secondary school students at a school in New South Wales (Petersen and Rigby 1999). Although that study did not address bullying among younger children, it has been included because of its cultural relevance. For the most part one must draw upon reports of evaluations conducted outside Australia. These need to be appraised for the applicability of their conclusions to the Australian educational context.

4.1 Selecting studies for meta-evaluation

Studies for meta-evaluation met the following criteria:

- Reliable assessments of relevant aspects of bullying behaviour were available at times prior to and after the intervention.

Assessments have taken various forms. For the most part, studies of the effects of anti-bullying programs have made use of reports from students using anonymous questionnaires. These have generally provided measures of the frequency with which children have been victimised or bullied and the frequency with which they have bullied others. Some have included other measures to assess the extent to which children have informed when they have been bullied and how often they have sought to help others who were being bullied. With younger, pre-literate students, the questionnaire method is generally considered impractical. Other approaches have involved interviews with children, teacher ratings, peer nominations (children indicate class or group members who are being bullied and/or bully others) and direct observations.

- The program and mode of intervention was adequately described.

This requires that a description of what elements or components were contained in the intervention and how it was implemented, ideally with sufficient detail to enable it to be replicated.

- The degree and significance of reported changes attributable to the intervention were provided.

This requires an appropriate research design and the treatment of data in such a way as to indicate implied change and its significance statistically. Various research designs have been used. The simplest is one in which the extent or degree of bullying was assessed before and after the intervention. This is described as the pre-test, post-test design. Others employed, in addition, a control or comparison group or groups. This improved research design is commonly described as pre-test, post-test control group designs (see Campbell and Stanley, 1963). It enables evaluators to take into account the following important effects: (i) changes in behaviour that result from the passage of time, as when children behave differently as they mature; (ii) changes that occur due to the intrusion of historical events unrelated to the intervention, for example, an increase in the stressfulness of family life of children induced by a rise in unemployment in an area; (iii) changes due to the children

being tested in the course of data collection; for example, answering questionnaires may increase awareness of bullying and affect its subsequent occurrence or reporting of its occurrence.

Because the experimental group(s) receiving the intervention and the control group(s) studied over the same or similar time period have comparable experiences (apart from the intervention) it is considered appropriate to compare changes in the two groups in drawing conclusions regarding the effectiveness of the intervention.

A further type of research design has been used in some of the studies. This is the age cohort design with time-lagged comparisons between age equivalent groups. This requires that groups that had received an intervention treatment at Time 1 and had progressed to a higher grade at Time 2 are compared on relevant measures with children of the same age at Time 2 with children who have not yet received an intervention treatment. An example of the use of this method may be found in the description of the evaluation of the Norwegian study in the Bergen area by Olweus (1993).

In fact, only two studies of children attending pre-school or kindergarten met the stated criteria. It was therefore decided to include also studies of older children, with the proviso that the findings should subsequently be examined to ascertain whether they were likely to apply also to younger children. Although the Australian study contained no primary school children, it was included because of its relevance to the work with Australian children.

4.2 Studies selected for meta-evaluation

The following studies were selected for meta-evaluation:

Pre-school and kindergarten

- The Bernese Study, Switzerland (Alsaker and Valkanover 2001)
- The Chicago Study, United States (McMahon et al 2000)

Primary school only

- The Toronto Study, Canada (Pepler et al 1993, 1994)
- The Sheffield Cooperative Learning Study, Sheffield, England (Cowie et al 1994)
- The Finland Study in Turku and Helsinki (Salmivalli 2000)
- The Texas Study (Expect Respect) (Sanchez et al in press)

Primary and Secondary school

- The Norwegian Project: as evaluated (a) in the area of Bergen by Olweus (1993) and (b) in the area of Rogaland by Roland (1989, 1993)
- The Sheffield Study, Sheffield, England (Smith and Sharp 1994)
- The Home Office Study, Liverpool and London (Pitt and Smith 1995)
- The Seville Study, Spain (Ortega and Lera, M-J, 2000)
- The Flanders Study, Belgium (Stevens et al 2000)

Secondary school only

- The New South Wales Study, Australia (Petersen and Rigby 1999)

These studies are described in detail and examined in Appendix 4.

5. EVALUATIONS OF INTERVENTIONS TO REDUCE BULLYING IN SCHOOLS

In this report 13 evaluations (listed above) of interventions to reduce bullying (or in some cases, interpersonal aggressiveness) in schools were examined. In conducting evaluations of the interventions, there were variations in methods of assessing bullying behaviour, in the research designs employed and in the level of schooling and age groups targeted (a detailed examination of each one is given in Appendix 4). The nature of these programs and associated outcomes are summarised below.

5.1 The programs

The programs commonly included a number of complementary components directed at different levels of the school organisation, for instance, at the level of school administration, the classroom, individual students involved in bully/victim problems and the wider school community. Several programs focused on the contribution of specific approaches involving the use of curriculum material, teaching methods and the use of continual assistance to schools in implementing anti-bullying programs. Generally, the programs employed in the interventions do not differentiate between upper and lower primary school.

5.2 The range of options

On the positive side, the majority of studies have provided results that indicate significant and, in a few cases, substantial reductions in bullying behaviour following the implementation of an anti-bullying program. The most positive findings have been reported by Olweus in the Bergen area of Norway where a reduction in bullying of the order of 50 per cent was claimed. By contrast, some other researchers have provided evidence of little or no positive change, as in the Toronto Study of Pepler et al (1994) or even negative change, as in the evaluation of the Norwegian study conducted by Roland (1989) in the Rogaland area of Norway. Most reports reported a modest improvement in the reduction of bullying of considerably less than 50 per cent.

5.3 Generality/specificity of intervention effects

Most studies were concerned with bullying in general rather than with specific kinds of bullying. An exception is the Bernese study with kindergarten children. Based on teacher assessments, it appears that some kinds of bullying may be more readily reduced than others. In particular, physical forms of bullying may respond more readily than verbal forms to anti-bullying programs.

5.4 Intervention effects in relation to children's ages

Of particular interest in this report are findings relating to interventions directed towards reducing bullying and aggressive behaviour among younger students. None of the studies examined and compared outcomes for a given program for children in the 4 to 8 year range with outcomes for older children. However, there were several studies which compared results for primary school children with those of secondary school age. These mainly produced similar results. Regarding changes in reporting being bullied following an intervention, both the Sheffield Study of Smith and Sharp (1994) and the Flanders Study of Stevens et al (2000) reported that there had been significant

reductions in their primary school sample but not in their secondary school sample. The Home Office Study of Pitt and Smith (1995) provided mainly supportive results. In both of the primary schools where the interventions had occurred, one in London, the other in Liverpool, children reported being bullied less often after the intervention, but only one of the two secondary schools (the one in London) showed a comparable reduction in children being bullied. In the New South Wales Study (Petersen and Rigby 1999) it was again the younger students (in Year 7) who showed a decrease in reporting being bullied; older students reported an increase.

5.5 Reductions in children being bullied in kindergartens

In the one study in which bullying itself was addressed in an intervention with kindergarten children (the Bernese study) there was a significant reduction in the proportion of children being bullied, as indicated by the nominations made by children, although, according to teacher ratings, reductions did not occur on all indices of bullying. This finding that a reduction in overall bullying can be induced by an intervention is consistent with results from the Chicago Study (McMahon et al 2000) for which there was an observed reduction in aggressive behaviour following an intervention. In general, the evidence suggests that bullying/aggressive behaviour among kindergarten children can be reduced, at least as far as the proportion of children being victimised by others is concerned. More confirmatory studies are needed.

5.6 Reductions in both being bullied and bullying others

Reductions in the prevalence of bullying following an intervention occurred in some studies with respect to both the proportion of children being bullied and the proportion of children bullying others. This was evident in the Norwegian study, as reported by Olweus in the Bergen area. In the Sheffield study of Smith and Sharp (1994) reductions in both being bullied and bullying others occurred in the primary school sample only.

5.7 Reductions in being bullied unaccompanied by reductions in bullying others

Consistency in reductions in being bullied and bullying others has not been found in three other studies. In the Bernese study with kindergarten children there was a reduction in the proportion of children being bullied but an increase in the proportion of children being nominated as bullies. Similarly, in the Finland study with primary school children there was again an increase in the proportion of children bullying others, but not themselves being bullied, this time as assessed by a self-report. Evidence from teachers in the Expect Respect Study in Texas (Sanchez et al, in press) suggests that the proportion of US Primary school children bullying others after the intervention may have actually increased. Here, however, we have no information on changes in the frequency of being bullied.

Such reported inconsistency between changes in results for being bullied and bullying others suggests that while interventions may sometimes reduce the proportion of children being bullied, those that continue to be bullied may find that there are more children ready to bully them. This may, in fact, not be an improvement in the situation. For victimised children, the bullying may be more intense and troubling. Arguably, an anti-bullying program may sometimes increase the capacity of some children to resist being

bullied. Those inclined to bully may decide to focus on the more vulnerable children who have not learned how to take care of themselves.

5.8 Increases in bullying in the absence of interventions

The use of control groups in some of the evaluative studies has been particularly revealing in that it has enabled us to see what is likely to happen if no intervention takes place. This is especially evident in the Bernese study where a large increase of 55 per cent in the proportion of kindergarten children being victimised occurred, according to children's nominations, in the control group only - that is, among children who received no intervention. Hence it is clear that an intervention should be judged not only in terms of reductions in bullying in an intervention group but also in terms of what is to be expected without an intervention.

5.9 Difficulties in identifying crucial components of multi-faceted programs

Most studies have not been particularly helpful in determining what components in a study are crucial. Most programs reviewed have contained a substantial number of complementary features, including different levels of intervention (as in the school, the classroom, the individual children, the community of parents) and different approaches or methods of intervention. For instance, some have emphasised the need for clearly understood rules and associated sanctions, as in methods employed in the Norwegian Study and in the Bernese Study, while others have employed less punitive measures, for example, through the use of the Method of Shared Concern, as employed by some schools in interventions in Sheffield (Smith and Sharp 1994), in Finland (Salmivalli 2001) and in Spain (Ortega and Lera 2000). In fact, these interventions, differing as they did in seemingly significant ways, produced similar outcomes.

5.10 The contribution of curricular activities

A number of programs have included the use of curriculum content relevant to countering bullying, but only one study has evaluated its effectiveness. The Chicago Project (McMahon et al 2000) directed towards kindergarten children included lessons on anger management, impulse control and increasing empathy. According to teachers, knowledge was gained by children in identifying feelings and facial cues, in thinking about how and why children might respond in conflict situations and in predicting the consequences of their responses. Behavioural observations (but not teacher observations) of aggression between children indicated a reduction in problem behaviours. Although the researchers were not concerned specifically with bullying behaviour, the outcomes were relevant to preventing or controlling the occurrence of aggressive behaviours that involved bullying.

5.11 The contribution of teaching method

Only one study has examined the relevance of teaching methodology to the level of bullying behaviour among children. Cowie et al (1994) examined the effects of cooperative learning on the interpersonal behaviour of primary school children. The evidence provided suggests that in itself Cooperative Learning may not be a particularly effective way of countering bullying. Although peer nominations of children being bullied reduced somewhat following this intervention, the authors regarded their

intervention as having provided disappointing results. They maintain that the intervention was conducted in difficult circumstances (in a multi-racial community with relatively severe peer relations problems) and implemented by a staff of teachers not fully committed to the approach.

5.12 The contribution of on-going external support in implementing anti-bullying programs

The Flanders Study (Stevens et al 2000), conducted with both primary and secondary students, posed the question of whether a research team introducing an intervention should continually provide assistance and support to schools when they are actually implementing a program. The results suggested that continual support is not helpful: the non-supported schools did at least as well in reducing bullying as those that received continual assistance. Arguably the loss in autonomy on the part of schools that feel they are being directed from outside is at least as influential in determining outcomes as any advice and 'support' they could have received.

5.13 Changes in awareness of bullying

It is generally assumed that programs to counter bullying increase knowledge and awareness of bullying. This assumption is rarely tested. The Expect Respect Project (Sanchez et al, in press), implemented with Year 5 students, provided results suggesting that their program did not result in an increase in knowledge about bullying. (It is not evident in the report what constituted 'knowledge'.) At the end of the intervention there was a greater awareness of bullying going on at the school. It cannot be determined whether this was because bullying had actually increased (as teachers in a focus group suggested) or because there had been an increase in sensitivity to bullying behaviour.

5.14 The factor of gender

Evaluations comparing outcomes for boys and girls have tended to produce inconsistent results. In their evaluations of the Norwegian study, Olweus claimed that the reductions in being bullied following the intervention were substantial and similar for boys and girls. In contrast, Roland, evaluating effects of the same program in the Rogaland, claimed that there was a substantial increase in boys reporting being bullied and at the same time a small reduction in girls being bullied at school. It is possible that long-term outcomes of intervention may differ for boys and girls. Three years after the Sheffield intervention began, a survey conducted in four primary schools indicated that bullying among boys had continued at a lower level than it had been at the pre-test. Among girls, the percentage of girls claiming to have been bullied was higher than before the intervention (Eslea and Smith 1998). Nevertheless, girls appear to be more favourably disposed than boys to interventions to reduce bullying. Feedback from girls involved in the New South Wales intervention was significantly more positive than boys in their evaluations of the methods used in implementing the program (Petersen and Rigby 1999).

5.15 Post-hoc evaluations

Several studies contained evaluative procedures which sought to obtain from the participants in the intervention their views on what components had been most effective. This procedure makes use of subjective judgments and is best regarded as providing estimates of what the participants found most satisfying or attractive about the project. Feedback in the Seville Study (Ortega and Lera 2000) indicated that aspects of the program that were directed towards improving the school ethos were considered by most students in the project as helpful in reducing bullying. These included democratic management of social relationships, education in 'feelings and values' throughout the curriculum, and working with individual bullies and victims. At the conclusion of the Sheffield Study (Smith and Sharp 1994), a large majority of students (around 80 per cent) in the participating schools indicated that the bullying situation had improved. Feedback from the New South Wales Study (Petersen and Rigby 1999) indicated that the contribution of the Student Anti-Bullying Committee was by far the most helpful in countering bullying.

5.16 Parents and teachers working together

Although some of the programs require that teachers and parents work closely together, especially in countering bullying among young children (see especially the Bernese Study evaluated by Alsaker and Valkanover 2001) no study has specifically examined the contribution of this element in reducing bullying behaviour.

5.17 The extent to which programs were actually applied

In the application of programs to counter bullying in schools, it is evident that some schools are more strongly committed to implementation and are more thorough in the work they do.

Two studies sought to take into account this factor by conducting interviews with staff in schools afterwards to assess the effort they had put into the intervention. Results from the Sheffield study, for 17 primary schools indicated a substantial correlation between rated staff involvement in applying the program and the outcome in terms of reducing bullying. In the evaluation of the Norwegian intervention conducted by Roland in Rogaland, again degree of school involvement in implementing the program was significantly associated with reductions in bullying, especially in primary schools. This may help us to understand how similar programs can at times produce dissimilar outcomes.

6. IMPLICATIONS FOR INTERVENTIONS WITH YOUNG CHILDREN IN AUSTRALIAN SCHOOLS

The evaluative studies reviewed above have a number of implications for addressing bullying among young children in Australia.

1. The most important implication is that there is fairly consistent evidence from evaluations conducted in many countries that bullying behaviour between children in schools and centres can be reduced significantly by well-planned intervention programs.
2. The chances of success in reducing bullying are greater if interventions are carried out among young children, that is, in pre-secondary school.
3. In the absence of a planned intervention to counter bullying, there may well be a deterioration in the situation with an increase in bullying behaviour.
4. An examination of the content of anti-bullying programs and approaches reveals that many of the ideas and elements contained in successful interventions are in fact being promoted and employed in countering bullying among Australian children. These included:
 - a. The use of awareness raising exercises, as in the use of surveys and discussion groups to identify the nature and extent of the problem
 - b. The use of a 'whole school approach' in which the resources of the whole school community are drawn upon and coordinated in a systematic manner in addressing the problem of bullying
 - c. Anti-bullying activities being focused at different levels - the school, the classroom, individual children and parent/community groups - have been widely endorsed and implemented
 - d. The use of the school curriculum to provide lessons and activities designed to help children develop knowledge, attitudes and skills that will help them deal more effectively with issues of bullying
 - e. The empowerment of children so they can contribute positively towards helping others involved in bully/victim problems, for example, through applying conflict resolution skills and participating in anti-bullying committees
 - f. The development of strategies and skills to deal effectively with individuals involved in bully/victim problems
 - g. Working cooperatively with parents and parent groups to improve the situation in a school with respect to problems of bullying.
5. There are grounds for some caution in supposing that anti-bullying initiatives will invariably produce the intended results. The examination of the evaluations has indicated that not all programs have proved to be effective. They indicate that the reductions in bullying have tended to be relatively small and to be related more to reducing the proportion of children being victimised than the proportion engaging in bullying. Further, 'successful' interventions have not shown that all aspects of bullying are necessarily reduced, for example, physical bullying may be lowered but verbal may not.

6. Currently available research does not enable Australian educators to decide between models that appear to contain elements that are in contradiction. For example, the Method of Shared Concern of Pikas (1989) has been promoted strongly in some programs that have achieved some success in reducing bullying, for example, in those implemented in Sheffield, England; in Finland; and in Seville, Spain. This is a so-called no-blame approach based upon principles that are contrary to the principles of behavioural control underpinning the Norwegian model advanced and promoted by Olweus (1993). (Olweus himself sees the two approaches as diametrically opposed, as does Pikas.) Hence, we have a situation in which research cannot arbitrate on a controversy over divergent approaches, both of which have enjoyed a measure of success in implementations that have, it should be said, contained other diverse elements. Some practical resolution of this problem may lie in determining in which situations it is more appropriate to use one of these approaches rather than the other.

7. A related and unresolved issue of practical interest to teachers and parents is whether young children should receive negative sanctions when they bully others, as Alsaker and Valkanover propose, or be treated more positively as Linke (1998) suggests. This is an important matter upon which there is no final verdict available from research. The most relevant study on this issue is a relatively old one by Gribbin (1979). Her experimental study compared the effectiveness of two strategies:
 - a traditional methods of dealing with aggressive, anti-social behaviour among 2 to 4 year olds (involving separating children who had acted aggressively from others and isolating them for a spell)
 - b so-called 'progressive methods' involving carers giving children who behaved aggressively special attention and warmth.

She reported that aggressive behaviour flourished in the latter condition but rarely occurred in the former. That study focused upon aggressiveness rather than upon bullying itself.

8. There is no necessary advantage to a school in external 'experts' being continually involved in the implementation of an anti-bullying program. A sense of ownership of the program by the school may be at least as important as any expert help that may be available from outsiders. In fact, too much 'interference' may jeopardise the prospects of success.

9. There is persuasive evidence that a crucial factor in determining a positive outcome in reducing bullying in a school is the commitment of the staff to implementing the program. Hence, it may be that the process by which an anti-bullying program is developed and the extent to which members of the school community become engaged in its implementation is at least as important as the content of the program.

10. The dearth of Australian research in evaluating interventions is of serious concern. Even though Australian educators can learn from the work conducted overseas, there is always the suspicion that generalisations across cultures may not be valid.

APPENDICES

APPENDIX 1: GOVERNMENT AND SCHOOL INITIATIVES

Recognition of the importance of bullying at a government level in Australia became evident with the publication of *Sticks and Stones* by the House of Representatives Standing Committee on Violence in Schools (1994). This influential report focused mainly on aggression and violence but also paid attention to the more specific problem of bullying. Government activities have increasingly been directed towards encouraging practical ways in which the problem of bullying in schools can be addressed. In 2000, the Commonwealth Department of Education provided a short booklet for parents suggesting how they might help in countering bullying in schools. See <http://www.detya.gov.au/schools/Publications/2000/bullying.htm>.

New South Wales appears to have been the first to promote specific anti-bullying policies in schools, with Education Minister Aquilino emphasising in 1995 the rights of every student and every teacher to be free from being bullied at school in a booklet *Good Discipline and Effective Learning*. Subsequently, the New South Wales Education Department provided a series of practical resources to help teachers address the problem. These included a peer mediation training package; a booklet promoting a whole school approach involving parents, students and teachers; and a publication on how playgrounds could be improved to effectively reduce bullying in primary schools (see <http://www.schools.nsw.edu.au/>). Of particular relevance to addressing bullying in Primary schools, in 1999 the Department produced the APEEL program - 'a partnership encouraging effective learning' (NSW Department of Education end Training 1999).

The APEEL program aims at promoting greater interpersonal competence among young children. It focuses on the teaching of social skills especially in early primary school. It is aimed at helping children to feel safe at school, especially those who have few (if any) friends and are particularly vulnerable to being victimised by peers. The program consists of three modules: a teacher training module; a student lesson module (45 lesson plans for observation records); and a parent module, consisting of a series of four workshops for parents and suggestions for a parent network. It is based on the premise that the development of social competence in young people is an effective antidote to the development of enduring anti-social behaviour patterns which would include bullying.

In 1998, Education Queensland produced an impressive package of materials for teachers to help in addressing bullying in primary and secondary schools. This included a video and an accompanying instructional booklet called *Bullying-No Way*. These were intended as a means of promoting professional education for teachers identifying and responding appropriately to cases of school bullying. Education Queensland also provided a website to publicise what state schools in Queensland are doing to counter bullying (see the following website: <http://education.qld.gov.au/students/>). A further important resource provided by Education Queensland is *Responding to school violence: an annotated bibliography of teachers' resources*, by Watts (1998).

Extensive information on countering bullying has been provided by the Victorian Education Department in its booklet for schools, *Addressing bullying: It's our*

responsibility (see <http://www.eduweb.vic.gov.au/bullying/geninfo/index.htm>). In 2001, all Victorian government schools were to report on the success of their anti-harassment and anti-bullying policies, together with any relevant data in their year 2000 report. The Victorian resource provides a good example of the methods of prevention and intervention that are currently being seen as 'best practice' in addressing bullying. The resource includes the following:

- an overview of bullying and useful resources
- examples of programs being implemented in schools
- an example of the procedure that may be followed in developing policy and implementing it
- survey instruments to assess level of bullying in a school
- ideas for working with children in classrooms including possible activities, for example, scenarios for children to discuss aspects of bullying and an exercise to get children to consider possible responses to being bullied
- advocacy of promoting in children assertiveness (To this end exercises are provided on making respectful T statements; information given on conflict resolution skills; and suggestions made on how conflict resolution can be applied)
- exercises to develop understanding of communication styles, for example, being aggressive, being submissive, being assertive
- an account of how rules can be developed with children to promote pro-social behaviour.

In April 2000, The Education Department of Tasmania produced a booklet for teachers called *Anti-discrimination and anti-harassment policy support materials* and a website with information for teachers on countering bullying and ideas for classroom activities: <http://www.doe.tased.edu.au/equitystandards/discrimination/support/intro.htm>. The booklet has sections on a range of matters in which discrimination is involved, such as racism, homophobia, sexism, disability and physical stereotyping. It does not, however, appear to recognise or treat in any detail bullying of a personal nature that is unrelated to the above social categories.

South Australia has since 1997 provided schools with information on addressing bullying as part of its Behaviour Management Policy. A more comprehensive treatment is planned in a booklet to be called *Out of Bounds*. The current thinking of the Department is described at <http://www.schools.sa.gov.au/schlstudents/>.

In the Australian Capital Territory, the Department of Education and Community Services has provided a Safe Schools Policy Framework which, among other things, seeks to provide support for continuing initiatives to eliminate harassment. These include: programs related to protective behaviours (taught in all ACT primary schools and some pre-schools); the development of school anti-bullying policies; the training of playground mediators or peacekeepers; anger management and conflict resolution programs, as offered by school counsellors; and peer support and buddy programs to assist children who are victims of bullying or harassment.

In 1998, the Education Department of Western Australia required all state schools to have 'a behaviour management plan' which included the treatment of bullying as a specific issue to be addressed (see <http://www.eddept.wa.edu.au/>).

The Education Department of the Northern Territory 'expects' state schools in the Territory to implement 'bullying and anti-harassment prevention policies' intended to protect students from 'all forms of harassment.' Harassment officers in schools are appointed to be the first point of contact (see: <http://www.education.nt.gov.au/>).

The National Anti-bullying Website Project

In June 1999, the Conference of Education System Chief Executive Officers (CESCEO) endorsed a proposal for states and territories to undertake a national scan of approaches to minimise bullying and violence in schools: to develop a framework for sharing workable solutions to these issues: and to investigate the use of technology and hypertext links to maximise accessibility to teachers and schools. Education Queensland is now working to develop the national website on behalf of a working group under the auspices of the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). The working group represents each state and territory government education system as well as the National Council of Independent Schools of Australia, the National Catholic Education Commission and the Department of Education, Training and Youth Affairs. The project is supported and monitored by the MCEETYA Student Learning and Support Services Taskforce. It is anticipated that the website will be available during 2002.

The role of the website is to provide information about the nature of bullying and harassment and to indicate what resources and practical methods are available for schools to address the problem. It is envisaged that school communities will be invited to make contributions to this resource, for example, in providing case studies of how they have effected positive changes in children's peer relations. One innovative aspect of this website is the provision of a so-called 'chill out' area where students can learn about the issues associated with bullying and become activists for positive change in their own lives and their school communities. In keeping with current rhetoric about bullying, it is claimed that the problem will be addressed at 'whole school and multi-dimensional levels to match local needs and social justice expectations'.

School initiatives

Many schools, both primary and secondary, have developed anti-bullying policies and implemented measures to prevent or deal with cases of bullying and harassment. The proportion of schools that have done so has not been assessed. However, it is known that over the past five years more than 500 Australian schools have made use of the Peer Relations Questionnaire and the Peer Relations Assessment Questionnaire (Rigby and Slee 1993: Rigby 1997a) to assess the nature and extent of bullying among their students. Currently, Rigby and Thomas are conducting a project supported by the Criminology Research Council in each of the states and territories to examine actions that have been taken by a sample of these schools to counter bullying. Many schools have formulated specific anti-bullying policies, introduced curricular activities to educate children about bullying, adopted systematic procedures to deal with cases of bullying and worked closely with parent bodies. At the same time, there is considerable variation between schools in the kinds of strategies being employed to counter bullying, for example, some seek to eliminate bullying behaviour mainly by the use of sanctions, while others predominantly employ counselling approaches. To some extent the anti-bullying initiatives in schools have developed independently of Education Department policies and practices.

School initiatives include invitations to presenters of talks and workshops on bullying to assist in the training of staff members to handle bullying issues more effectively, and employment of professional actors to present plays and involve schoolchildren in role plays. One group that has been particularly active in promoting educational drama in schools has been a company known as Sticks and Stones, a Brainstorm Production. This group was awarded a 2001 Violence Prevention Award by the Australian Institute of Criminology for its work in schools (see <http://www.brainstormproductions.com.au/>). Another group known as Fair Go operating in Queensland primary schools involves children directly in a dramatic production intended to teach assertiveness skills in responding to bullying behaviour and to encourage positive bystander behaviour. Their company can be contacted on 07 3290 7236.

APPENDIX 2: AUSTRALIAN PROJECTS ADDRESSING BULLYING IN SCHOOLS

A number of programs have been developed and promoted in Australian schools by groups that are outside educational systems. As yet, however, they have not been evaluated empirically and are therefore not included in the interventions described in Appendix 3.

The Friendly Schools Project

The Friendly Schools Project was developed by a research group led by Associate Professor Donna Cross at Curtin University in Western Australia (see Centre for Health Promotion Research 1999). Its aim is to assess the effectiveness of a whole school intervention aimed at preventing, reducing and managing bullying in the primary school setting. The target group for the study is Year 4 students, teachers and parents across the years 2000 and 2001. The assumptions are that bullying can be reduced if children develop 'skills and values required to respond adaptively to bullying....', 'support students who are bullied, and refrain from bullying others...' It is also asserted that a whole school approach is needed that engages parents as well as staff.

The program involves a wide range of activities, including extensive consultation and policy development. A central feature is the Teacher Manual outlining nine lessons which provide information about bullying, how to feel good about yourself and others, and how to cooperate with others. The lessons are intended to be practical and to address the needs and interests of children in Years 4 and 5. This program emphasises the importance of increasing cooperative behaviour among children and focuses on values that such behaviour encourages. Unlike many programs addressing bullying, it is well informed by findings from recent research in the area. Although the curriculum material is designed for Years 4 and 5 in primary school, some of it could be adapted for younger children. An evaluation of this project, based upon outcomes for both intervention and control groups, is expected during 2002.

Mind Matters: dealing with bullying and harassment

MindMatters is a national mental health strategy funded by the then Commonwealth Department of Health and Aged Care (now Commonwealth Department of Health and Ageing; see Curriculum Corporation 2000). Part of it provides classroom materials for use in a whole school approach to dealing with bullying and harassment. It seeks to develop with students an understanding of what bullying is, and explores bullying themes through literature and drama. The proposed curriculum content is more suitable for older students but could be adapted for use with younger ones. The program has been promoted throughout Australia and has been used by numerous schools; however, as yet, it has not been evaluated.

From bullying to responsible citizenship: a restorative approach to building safe school communities

This project was supported by the Criminology Research Council in 1996 and aimed at reducing bullying among primary school children through their involvement in a program of classroom activities. Its rationale is based upon Ahmed's (1999) conception of PRISM (Program for Reintegration and Individual Shame Management). Broadly, it is

assumed that if children identify with the school and handle feelings of shame appropriately they will not become involved in bully/victim problems.

The qualities that the program seeks to develop in children are respect for others, the capacity and openness required to consider what others are saying, and a readiness to participate in a process that enables feelings of shame to be appropriately discharged. Curriculum material, exercises and role plays have been developed to achieve these ends. The program has been trialled in a number of primary schools in the ACT in 1996 with 978 children enrolled in Grades 4 to 7. Evidence suggested that children who bullied others had relatively little pride in their school and that children who were frequently victimised had little respect for themselves, and that the program could bring about desirable change in attitudes relating to bullying behaviour (Morrison 2001). It was suggested that the key to changing the behaviour of children who bully others lies in persuading them to acknowledge feelings of shame and make amends by repairing any harm that has been done. Unfortunately, no evidence has been presented concerning the extent to which the program can bring about actual reduction in bullying behaviour.

Peer Support

The work of the Peer Support organisation in NSW is described, but not evaluated, in *Together we can work it out: an anti-bullying program for primary schools*, a publication provided by the Peer Support Foundation of New South Wales in 1998. It proposes that Year 5 and 6 students in Primary Schools be suitably trained so as to provide sessions (with teacher assistance) for groups of younger students in order to help them understand and counter peer-related bullying. The publication contains suggestions as to how the program should be implemented, supervised and evaluated, and questionnaires that can be answered by students and by parents to provide information about the nature and extent of bullying at the school, how students respond to bullying and where it takes place. Schools are encouraged to use these questionnaires before and after the intervention in order to assess its impact.

The publication also contains a comprehensive set of notes for teachers and for the students conducting the sessions. In total there are 15 sessions, each of which is described in detail and complemented by activity sheets to be used by the younger children. Areas covered include knowledge about bullying, how children feel when they are bullied, why children bully, how to be assertive, how to control anger and how to listen attentively. Role playing is encouraged and activities are provided to increase understanding of peer-relations and to improve pro-social skills.

The Peer Support Foundation of New South Wales offers training and assistance to implement the project, for which interested schools must budget. As yet, no evaluation of the program's effectiveness has been reported.

Program Achieve (second edition)

The program is contained in a book, also entitled *Program Achieve*, by American author Michael Bernard (2001), which provides 'a curriculum of lessons' for teaching students how to achieve success and develop social emotional well-being. It is for use with Grades 1 and 2. A number of schools in Australia have adopted it.

A sub-title of the book is 'You can do it'. It emphasises the importance of ways of thinking about one's behaviour and situations that can help children to become 'successful'. To a large extent the ideas in this book have been derived from the rational emotive therapy theorising of Albert Ellis (1989). Being 'successful' includes both academic success and social emotional well-being. The program's relevance to bullying is found in two of the so-called foundations for success - having confidence and getting along with others.

The curriculum material includes exercises designed to counter self-defeating and irrational thinking patterns. This can be important for children who allow the experience or threat of being bullied to depress them and make them even more vulnerable to peer harassment. Self-confidence is promoted through getting children to be more self-accepting, to take reasonable risks, to act independently and to believe that they can achieve their goals. This is useful advice for those who see being teased or bullied as a major catastrophe rather than a challenge to be faced. 'Getting along with others' is encouraged through exercises focusing on ways of making and keeping friends. This can be valuable for children who are often victimised because they have few if any friends to support them.

The proposed activities are directed towards getting children to think in positive ways about themselves and others. For children who are capable of grasping elementary principles of rational-emotive thinking they are likely to be personally beneficial and lead to higher levels of cooperative and well-considered action. However, given the relatively low level of cognitive development of young children it seems likely that this approach would be more beneficial with older children. Although there is some evidence, cited by Bernard (2001), that supports the view that academic achievements of older children can be increased by this approach, there is, as yet, no evaluation available showing its impact on bullying.

APPENDIX 3: CONTRIBUTIONS OF PUBLICATIONS ADDRESSING BULLYING IN SCHOOLS AND PRE-SCHOOLS

Several publications have been influential in guiding the responses of Australian Education Departments, schools and parents to the problem of bullying among children. These are described and discussed below.

For pre-school teachers

Australian publications

Linke, P 1998, *Let's stop the bullying*, Australian Early Childhood Association, Canberra.

This is the only Australian book available that focuses in depth upon bullying in kindergartens and early primary school. It was published by the Australian Early Childhood Association (Linke 1998) and is seen as a key text on the subject at Australian pre-school centres. It is therefore examined more extensively than the other Australian texts which are not exclusively concerned with pre-schools.

Bullying is defined in the book as 'ongoing behaviour by one or more persons which is used to intimidate, frighten or dominate others' (page 1). It is seen as repeated and intentional, giving a sense of pleasure to those who do it and directed towards others seen as weaker or more vulnerable. Linke (1998) asserts that such behaviour is evident in the interactions of some children with their peers from the age of three years, and may take the form of teasing, disrupting others' play, persistently excluding someone and hitting. All of this is consistent with what has been observed in pre-schools in Australia (Main 1999) and overseas (Kochenderfer and Ladd 1996).

In discussing the nature of children who tend to be bullied most at school she notes that 'victims' tend to be physically weaker than aggressors, lack confidence and have low self-esteem, again judgments confirmed by research (Olweus 1993). On the other hand, she makes some assertions about bullies that have little or no support, for example, they are likely to have low self-esteem and to be underachievers at school. These are widely held myths, not supported by empirical research.

In addressing the subject of interventions, Linke (1998) emphasises that childhood educators and parents often make matters worse by the way they intervene, a view supported by some researchers, for example, Killen and Turiel (1991). She argues that rescuing the victim turns the bully against the rescuer and makes it more likely that he [sic] will attack the victim again when he gets the chance. Moreover, any punishment that is administered will result in the child seeing the adult as the bully and quite possibly telling his parents about it. The parent might then go to the school or centre and accuse the staff of bullying their son. This, she concludes, must embitter relationships and prevent the problem being solved.

Part of the difficulty in evaluating this viewpoint lies in what is meant by the emotive word 'punishment'. If it means arbitrary and vindictive action on the part of the teacher, then the view may be sustained. If it includes admonishing a child for having behaved badly, for example, having broken an agreed rule, then the view may be disputed. Since the author has argued that a child should never be blamed for his or her actions,

it would appear that the use of any sanctions would be unacceptable. It is assumed then that a child after being 'told off' will generally not accept that he has behaved wrongly and that parents will not accept that their child should be admonished by a teacher for bullying someone. These are untested and questionable assumptions.

One may conclude that Linke is opposed to the 'mainstream' way of dealing with bullying. She recommends the No Blame Approach of Maines and Robinson (1992) and the Method of Shared Concern of Anatol Pikas (1989). It is unclear, however, how they would be applied with pre-school children, as these methods are normally seen as requiring a relatively high level of maturity and social understanding on the part of the children involved in bully/victim problems.

Linke puts the emphasis on prevention; that is, in creating an environment that is not conducive to bullying. She argues that educators should seek to influence parents so that their children are not exposed to violence in the media; that teachers should form strong, loving relationships with children and model pro-social behaviour; that they should help children to be assertive and resilient so that they are less likely to be bullied or hurt by being bullied; and that the school or centre should have a clear policy on bullying. All these are consistent with recommended practice. She asserts that children should inform adults if they are being bullied. It would seem, however, that when a child 'tells,' he or she is expecting an adult to provide justice' and will be disappointed if offered advice on how to be assertive and resilient.

In conclusion, this approach recognises the harmfulness and seriousness of bullying and the need for policies and 'techniques' for dealing with individual cases and working closely with parents. It emphasises the creation of a positive, encouraging environment in which children develop positive relations with others. It takes a somewhat extreme view in opposing the use of 'consequences' for the breaking of rules designed to prevent bullying.

Howard, A 1996, *Teaching social skills in early education: let's talk about it*, Department of Education and Training, Adelaide.

This book, published by the Education Department of South Australia, is directed towards the teachers of young children in kindergarten and early primary school. It touches upon the subject of bullying but does not explore it in detail. It nevertheless provides an example of the kind of information that has been available up to now to teachers of young children.

It focuses mainly on the need to help young children acquire good social skills. These are seen as extremely valuable in enabling children to enjoy more positive relations with others. Bullying is an issue treated in this context. The message given is that 'bullies may have a poor self-concept and poor social skills'. As a 'possibility' in individual cases, this view can be defended, but as an empirical generalisation it has not been supported by research into the personality correlates of bullying behaviour (Rigby 1996). Some tips are provided for dealing with bullies, such as: 'ask the bully how he thinks someone might feel if he were told that somebody didn't like him'; and 'help the bully develop self-esteem'. It is further proposed that children should discuss 'whether it is fair or right for a group or a child to reject one of the group'. The general thrust of this publication in providing advice on enhancing social skills and empathy is praiseworthy, but the treatment of the issue of bullying is generally superficial and potentially misleading.

Overseas publications

Froschl, M, Spring, Band Mullin-Rindler, N 1998, *Quit it: a teacher's guide to teasing and bullying for use with students in Grades K-3*, NEA Professional Library, Washington, DC.

This guide for teachers of kindergarten and early primary school children was developed in the United States by Merle Froschl et al (1998) specifically to counter bullying among children. Like the Bernese program in Switzerland, this anti-bullying U.S. work is based largely on the work of Olweus in Norway. As such, it is strongly rule-oriented.

The authors suggest that children should discuss issues around bullying and teasing, explore what makes them feel welcome and unwelcome at school and identify areas at school where they feel safe and unsafe. They recommend that children practise ways of responding to bullying that are realistic and likely to be effective. Further, they assert the desirability of children responding courageously, for example, as bystanders so as to discourage bullying - but without taking unreasonable risks. Finally they emphasise the importance of recognising that bullying is, to some degree, a gender issue, given the tendency for boys to bully girls more often than the other way about.

The methods used by teachers with kindergarten children include group discussions of instructive stories on how to relate to others and the development of sensible rules to guide people's behaviour with others. They suggest that children be asked to share their experiences and thoughts about good and bad behaviour and take part in exercises in which they practise behaving in a confident and assertive manner. A final section to the guide focuses upon problem-solving techniques that can be used in conflict situations. They provide an extensive bibliography of stories that can be used to help children to think about interpersonal problems.

This American text is particularly strong on involving children in exercises to appreciate and generate rules that would promote more positive peer-relations, and to develop appropriate skills to counter bullying. It appears to be unique in exhorting children to act 'courageously' in seeking to stop bullying, for example, as bystanders. It does not, however, explore and suggest what can be done to change the motivation and behaviour of children who continually bully others.

Slaby, RG, Roedell, WC, Arezzo, D and Hendrix, K 1995, *Early violence prevention: tools for teachers of young children*, National Association for the Education of Young Children (NAEYC), Washington, DC.

This highly influential book by Slaby et al provides a useful examination of factors that give rise to violence and, more specifically, bullying among young children in pre-schools. It constitutes a research-based attempt to convey practical ideas to teachers of young children. It comes down strongly against allowing aggressive behaviour among young children to continue. The authors state: 'If we allow young children to use violent and destructive behaviors to express feelings or gain attention and other rewards, they are likely to show continuing and escalating patterns of violence as they get older' (page 82). They argue that if violence is permitted in the early childhood program, other children may learn from it and then imitate it. Alternatively, they may learn to fear and submit to violence and victimisation. Slaby et al assert that if we want children to learn the message that violence can be stopped and replaced with non-violent alternatives, then we must demonstrate these principles in the children's social worlds.

They are fully in agreement with the view expressed in *Pathways to Prevention: developmental and early intervention approaches to crime in Australia: summary volume* (NCP 1999) that 'the strongest, most durable effects appear to result from programs that have been implemented early in developmental pathways and have lasted several years' (p 20).

Much of their practical advice emphasises changing the behaviour of aggressive children. This includes teaching impulse control and helping such children to think of the likely consequences of thoughtless actions. They assume that the development of better social skills will result in less bullying. In particular, they recommend encouraging cooperativeness and sensitivity to others, for example, by teaching listening skills, modelling positive ways of responding to others, and making use of stories, songs and videos that convey non-violent messages. They believe that role play should be used to demonstrate appropriate assertive behaviour.

It is noteworthy that although the rhetoric is strong against allowing bullying to continue uncorrected, the emphasis is upon social skills development - that is, using positive means of teaching and relating to young children, so that children's behaviour towards others will be cooperative and free of bullying.

Katz, LG and McClellan, DE1997, *Fostering Children's Social Competence*, National Association for the Education of Young Children (NAEYC), Washington, DC.

This second authoritative text published by the NAEYC focuses on the ways in which the social competence of young children can be fostered through pre-school education. As in the book by Slaby et al (1995), bullying is seen as preventable or treatable by teaching those children involved in bully/victim problems better social skills. The authors are careful to distinguish bullying from 'rough and tumble play' and from acting in an appropriately assertive way. They also maintain that there may be 'a transitory period of more pronounced aggressiveness' that 'may be a step towards maturity for a child who has yielded passively to others' assertions...' (page 95). This suggests that aggressive behaviour in young children may not always be undesirable.

In discussing the motivation of bullies, the authors subscribe to the view that bullies are likely to have low self-esteem and low social status. This is inconsistent with research that has reported that children who bully have about average self-esteem and may have high status, especially among children who admire their dominating ways. On a practical level, it is argued that attempting to modify bullying behaviour of young children by asking the bully such questions as 'how would you like someone to do that to you?' is unlikely to have a positive effect, because questions of that nature require analysis and reflection beyond the capabilities of the young child. The teacher might more usefully indicate that she did not like the behaviour. Clearly whether this would be effective might depend upon the teacher's relationship with the child and whether the child cares about the teacher's judgment.

To help the victim, the suggestions are twofold: teach the child to resist calmly and assert that he or she does not like being treated in that way. If this twofold approach fails, the authors believe that decisive action should be taken. They conclude '... the teacher must step in firmly to reduce the bullying behaviour as it unfolds' (page 96).

Books for parents

Australian publications

Three books in particular have addressed the problem of what parents can do to help their children cope more effectively with bullying.

Berne, S 1996, *Bully-Proof your child*, Lothian, Melbourne.

This book focuses mainly upon the prevention of bullying by seeking to ensure that a child is resistant to bullying at school. It is suggested that a child can be 'bully-proofed' by good parenting: that which develops in a child high self-esteem and the social skills that help the child to be cooperative and helpful to others. Although low self-esteem is often found among children who are victimised at school, there is no research evidence suggesting that the possession of high self-esteem can effectively guarantee immunity from bullying. Low self-esteem is generally seen as a consequence of being victimised by others rather than a reason for being victimised.

Griffiths, C 1997, *What can you do about bullying: A guide for parents*, Meerilinga Children's Foundation, West Perth, W.A.

This book, written by a well-known consultant on bullying issues with schools and Education Departments in Australia, concentrates mainly on what parents can do if their child is bullied at school, and offers practical advice on assisting the child to overcome the problem with the cooperation of school authorities.

Field, EM 1999, *Bully busting*, Finch, Lane Cove, Sydney.

This book is largely about what children who are being bullied can do to deal effectively with children who bully them at school. It provides advice that can be used by both parents and teachers. It emphasises the development of assertiveness skills that may overcome the problem.

General texts and materials for schools, including primary schools

Australian publications

Rigby, K 1996, *Bullying in Schools - and what to do about it*, Australian Council for Educational Research, Camberwell, Melbourne.

This is a research-based book that seeks primarily to inform schools, both primary and secondary, about the nature of bullying among children and how it can be countered through a wide range of methods and approaches.

Rigby, K 2001, *Stop the bullying*, Australian Council for Educational Research, Camberwell, Melbourne.

This book provides practical suggestions for schools, based upon Australian and overseas research.

Slee, PT 2000, *The P.E.A.C.E. Pack: a programme for reducing bullying in our schools*. Second edition. Flinders University, Adelaide.

This package provides detailed instructions on how a specific program to address bullying can be undertaken in a school.

Lewers, R and Murphy, E 2000, *The Hidden Hurt*, Wizard Books Pty Ltd, Ballarat, and Suckling, A and Temple, C 2001, *Bullying: a whole school approach*, ACER, Melbourne.

These books are similar in recommending a whole school approach and reviewing methods of dealing with issues of bullying, but in addition they provide useful practical ideas for classroom teachers who cater for younger students.

Overseas publications

Three texts from overseas have been particularly important in encouraging anti-bullying policies and procedures for countering bullying.

Olweus, D 1993, *Bullying at school*, Blackwell Publishers, Oxford and Cambridge, MA.

This book was written by the best known and most influential of the researchers and writers on school bullying. He directed the Norwegian project, the largest and most successful of its kind in reducing bullying in schools (see Appendix 4). The emphasis in his book is on a whole school approach directed at different levels: the school, the classroom and the individual students involved in bully/victim problems. He particularly advocates the development with students of rules against bullying and the use of negative and positive sanctions in implementing them. As such, his work appeals strongly to those who see traditional behaviour management principles as the key to reducing bullying.

Smith, PK and Sharp, S (Eds) 1994, *School bullying: Insights and Perspectives*, Routledge, London.

This text has similar credentials to the Olweus book, in that it is based in part on findings from a successful intervention to reduce bullying among school children. It is, however, much more eclectic in the measures suggested and provides descriptions of non-blaming approaches such as the Method of Shared Concern.

Garrity, C, Jens, K, Porter, W, Sager, N and Short-Camilli, C 1997, *Bully-proof your school: a comprehensive approach for elementary schools*, Sopris, Longmont, Colorado.

This American text has been used as a basis for interventions to reduce bullying in some Australian primary schools. It will therefore be examined in more detail. It follows the Norwegian model in assuming that the main way of reducing bullying is through the use of rules and consequences. Its general view of the situation in schools is this:

There is a power imbalance at a school in which bullies have the power to terrorise others. This power imbalance must be changed. This can be done by the staff leading a movement to support the 'caring majority' of children so that they have the power. The basis of the book's mission statement is that there must be strict 'no-bullying rules' enforced by the staff. Bullies are not to be listened to; 'pre-determined' automatic

consequences must apply for rule infractions; and bullies are to be compelled to apologise to their 'victim'. Bullies are seen as needing a firm, calm, confronting 'no-nonsense' style of treatment.

Somewhat inconsistently bullies are described elsewhere in the book as suffering from 'skill deficits' and 'correct thinking errors'. This suggests that some form of social skills training and cognitive therapy may be needed, rather than behaviour modification. (There is in fact no research evidence that children who bully are generally less socially or mentally competent than others). Bullies are also described as lacking compassion for their victims. It is not clear how being made to apologise to victims will affect this tendency. Whether all bullies actually 'lack' empathy or simply sometimes suppress empathic responses when they are part of a group 'having fun' is not considered, although there is evidence.(Pikas 1989) that bullies may sometimes react compassionately when they are interviewed in a one to one situation. Also it is not recognised that bullying behaviour is sometimes elicited by provocative victims, and that the reasons for bullying behaviour are not always simple. Finally, the authors assert that 'boys (unlike girls) usually bully with physical aggression' which is incorrect. Most bullying at all age levels and for boys and girls has been shown to be verbal in nature.

Despite this unusually authoritarian way of dealing with bullies, the book contains a good deal of advice on promoting friendliness and being helpful to children in distress. Although most of the book is designed for older elementary school children, there are exercises and role plays for first and second grade children which are intended to promote pro-social and empathic response to others. Ideas on managing anger and helping to resolve conflicts are explored. Teachers are encouraged to note which children have exercised 'acts of kindness' and reward them occasionally.

In summary, this contribution to countering bullying contains a number of statements inconsistent with findings from published research, adopts a view of the bully that demonises him [sic], thereby justifying a strongly 'no-nonsense' approach which is seen as necessary to wrest power away from these deviant children. On the positive side it promotes friendly and sympathetic behaviour towards children who are victimised and supports conflict resolution methods as practised by students if not by staff. Some of the content of the book is seen as relevant to junior primary students.

APPENDIX 4: EVALUATIONS OF PROGRAMS TO COUNTER BULLYING IN SCHOOLS

1. The Bernese Study, Switzerland

This is the only study that has rigorously assessed an intervention designed to reduce bullying in kindergartens. It was recently conducted in Berne, Switzerland. The work of Alsaker and Valkanover (2001) is referred to as the Bernese Study and the first report in English became available in 2001.

The program

As described by Alsaker and Valkanover (2001, pp188-189), the program was directed by a research team and implemented by teachers. It required 'intensive focused supervision' of kindergarten teachers for a period of approximately four months, during which time eight meetings with teachers were conducted. The aims and content of the meetings can be summarised as follows:

- To sensitise teachers to different kinds of aggressive behaviours perpetrated by children
Teachers were assigned observational tasks upon which they were asked to report back later. They were asked to discuss their findings and their 'often idealised' expectations of pre-school children.
- To promote close contact and cooperation between teachers and parents on matters relating to bullying
COTeachers were 'invited' to 'start thinking about organizing a meeting with parents'.
- To convey the importance of setting limits to children's behaviour and the necessity of providing sets of rules to regulate children's interpersonal behaviour
Teachers were asked to elaborate some behaviour codes with the children and to come back with the rules that would be used in their classes'.
- To ensure that the behaviour of the children was managed in a consistent manner
Teachers were urged to make use of 'both positive and negative sanctions, and the use of basic learning principles'.
- To facilitate discussion among teachers of issues of interest
These included whether children should inform when they received 'unwanted behaviour'; the role and responsibility of so-called non-involved children and bystanders; the possible relevance of empathy, gender differences and expectations of so-called 'foreign children'.

Despite the fact that a good deal of the above is clearly directive, the authors insist that 'throughout we defined the teachers as experts on their children's groups' (p189) and that they simply provided them with research-based knowledge, offered ideas and made suggestions.

Participants

All kindergarten teachers in Berne, apart from those used in a preliminary study, were invited to take part in a study which was described to them. This guaranteed that no schools would have been influenced by participation in an earlier study in which assessments of bullying had taken place. The centres self-selected; none were coerced into taking part. The centres in the study were those motivated to try to reduce bullying among their children. Results could be generalised to centres which were keen to undertake anti-bullying programs.

Centres were asked to say whether they wanted to be in the study immediately and thereby become an intervention group, or were prepared to wait a year - and in the meantime to serve the purpose of a control group. This may be regarded as desirable in that it enabled all the interested schools to receive the proffered help to reduce bullying sooner or later. However, as the researchers conceded, the centres that wanted to start immediately (and did so) were more strongly motivated than the control groups which were ready to wait. Arguably at the 'intervention centres' there was a more urgent need to get started. This was a minor defect in the design which could have been avoided by random allocation of centres to the different 'treatments'.

A positive feature of the sampling in this intervention study was that parental permission to participate was provided for 99.4 per cent of children in the 16 kindergartens that were included in the study. The numbers and gender ratios in the eight intervention and eight control centres were broadly similar with 152 children (50 per cent girls) in the former group and 167 (50.9 per cent girls) in the latter.

Finally, it should be noted that although the children in this study are described as 'kindergarten' children, the ages of the participants in the Berne studies were somewhat higher than is normally found in Australian kindergartens, being between 5 and 7 years.

Assessment methods

Alsaker and Valkanover (2001) acknowledged that measurement of bullying among young children is difficult, and they sensibly opted for using more than one method of data collection. One method made use of interviews with each child. Photographs of every child in the class were shown one by one to each interviewee, who was asked to describe how the child in the photograph interacted with others. Scores for each child in the class were computed according to the percentages of nominations he or she received from the class members indicating that he or she engaged in bullying others or was bullied - or fitted both categories. There was a high consensus in the children's judgments suggesting good reliability. However, many children (over 70 per cent) nominated themselves as victims, and such judgments were discounted as unrealistic as this estimation was considered unreasonably high. Therefore results for self-nominations were not used in the study.

The second method made use of teacher ratings. Alsaker and Valkanover point out that unlike the situation with older children, teachers are less focused on the academic content they must impart and generally have a better opportunity to observe the social behaviour of children. This appears to be the case in Australia as well as overseas. Teachers were asked to rate children on a five-point scale according to their tendencies to bully others and their tendencies to be victimised by others. Methods of bullying were differentiated in making these judgments: teachers were asked to rate individual children according to whether they practised physical, verbal, relational (exclusion) or property-related bullying and whether they were victimised by such means.

Research Design

The researchers made use of the classical pre-test post-test control group research design (Campbell and Stanley 1963). This requires that two equivalent groups of respondents or units be selected, one of which is subjected to an intervention procedure, while the other is not. Eight intervention and eight control schools were employed. Data was collected at the start and at the end of the school year. Outcomes for the intervention and control groups were then compared and statistical analysis undertaken to evaluate differences.

Outcomes

The main results are presented in graphical form and their statistical significance is not reported in detail. The authors state what was statistically significant but not the level of significance. What the graphs (and their interpretation by the authors) show are the following:

- According to reports from children in the intervention group, there was a reduction of 15 per cent in the proportion of children nominated by peers as being victimised. At the same time there was an increase of 55 per cent of children in the control group who were nominated as victims.
- Consistent with the above, teachers in the intervention group reported a significant reduction in children being victimised physically and also indirectly, that is, through being isolated. However, there was a reported increase in the extent to which children were observed being bullied verbally.
- From neither the data derived from children's nominations nor the data derived from teacher ratings was there any evidence of a lessening in bullying behaviour (that is children bullying other children) in the intervention or in the control schools; indeed, according to children's judgments in both groups there was a slight increase.
- The outcomes thus appear to be somewhat mixed, depending upon the way bullying was assessed. Generally, the intervention appears to have led to a decrease in the proportion of children being victimised, despite a suggestion of a slight increase in the proportion of children actually engaging in bullying behaviour. Finally, there is an indication that in the absence of an intervention program, the proportion of children attending kindergarten being victimised by peers is likely to increase substantially.

Critique

Strictly speaking, the Bernese study is concerned with aggressive actions perpetrated by young children aged 4 to 7 years. A good deal, but not all, of this behaviour may be termed bullying. The researchers appropriately made use of multiple measures of children's behaviour, drawing upon both teacher reports and children's nominations. Unfortunately, the authors do not report the degree of association between the measures, as do Crick et al (1997) in their study of relational and overt aggression in an American pre-school. (Crick et al reported low but significant correlations between their measures for some sub-groups.) It would have strengthened the Berne study if they could have reported evidence of the concurrent validity of the methods used in their data collection. The use of a control group design allowed the researchers to take into account changes that took place overtime independently of the intervention.

This peer-nomination method, which provided important results in this study, is widely used in research into bullying in many countries in Europe and North America, including some studies of kindergarten children. The use of this method has, however, run into serious problems with Ethics Committees in Australia. It is commonly discouraged on the grounds that it is unfair to ask children to make judgments about other children. It is therefore not possible at this stage to obtain comparable Australian data using this method.

The authors claim that 'a prevention program based upon teacher counselling had an effect of reducing the number or intensity of aggressive interactions and on diminishing the risk of being victimised'. This general conclusion is somewhat overblown. It should be noted that it is inferred from accounts or ratings of being victimised rather than accounts or ratings of victimising others. The evidence for a decrease in children being victimised is not entirely consistent. According to teacher data, the reduction is reported as occurring in physical bullying and indirect bullying; however, there was a reported significant increase in verbal bullying and no change in material-related victimisation. Further, there was no evidence that the proportion of students taking part in bullying others decreased.

The authors claim that, in the absence of a systematic intervention program of the kind they initiated, bullying is likely to increase. This claim is supported by the data derived from the children's nominations of children being victimised, and also from teacher ratings of material-related victimisation. But note that there is no evidence from teacher data of 'things getting worse' for vulnerable children in the control group as far as physical, verbal and indirect bullying were concerned. The general claim is made that if there is no systematic intervention peer victimisation is likely to increase over the course of a year. This claim rests on inferences from the children's data and is not consistently supported by teacher judgments.

The findings from this study raise a number of questions.

Why might bullying tend to increase over time when not systematically addressed?

There are several possibilities. One is that increases are 'not real' but are due to an increased sensitivity to the phenomenon of bullying. Children and teachers may come to include as bullying what was not noticed or not regarded as bullying at an earlier stage. This could have occurred in the control schools, given that these schools (though seemingly not in such urgent need to intervene to reduce it) nevertheless were interested in reducing bullying, and members of the school community may have increased their sensitivity to it over time. In addition, the very fact that the teachers and children were involved in assessing the prevalence of bullying would have affected their sensitivity to it. This has been observed to be an important contributory factor to change in the absence of a planned intervention (Campbell and Stanley 1963). However, it should be noted that the individuals in the intervention group were subjected to more information and more persuasion relevant to bullying, but (as far as the children's data were concerned) did not show an increase in the percentages of children being nominated as victims. A different explanation seems more plausible.

Alsaker and Valkanover propose that what happens over time when a child is bullied can be explained by the so-called gradual consolidation hypothesis (Alsaker and Olweus 1992). According to this view, being victimised can result in a gradual change in self-perception that may make one feel increasingly negative about oneself - that is, more helpless, worthless and ashamed. This may account for such children becoming more likely to see themselves as victims and arguably becoming more likely to be

victimised. We know from the work of Egan and Perry (1998) that children with low self-esteem are more likely than others to elicit bullying responses from others. It is certainly possible that the anti-bullying work of teachers in the intervention group to some extent cancelled out this tendency.

Given that there were fewer victims after the intervention aimed at stopping bullying, why was there no corresponding decrease in the number of students identified as bullies?

One might have expected that a decrease in the proportion of children being victimised (as in the children's data) would have been accompanied by a decrease in the proportion of those who bullied others. But the proportion of bullies did not change. It may have been that those who bullied were concentrating on fewer victims. Possibly some of the children who were bullied at the pre-intervention time had subsequently learned how to defend themselves more effectively. Alternatively (or additionally) possibly over time the 'bullies' had gained a better appreciation of who was more amenable to being bullied or gave greater satisfaction when bullied. If this is the case, one may question whether an increase in intensity of bullying focusing on fewer individuals constitutes much of an improvement. Relatively severe suffering on the part of a smaller minority of children may be at least as objectionable as suffering at a lower intensity level by a greater number of victimised children.

Why was there inconsistency in the changes in bullying behaviour as reported by teachers?

Teachers reported a decrease in physical and indirect forms of aggression but an increase in verbal bullying following the intervention. Alsaker and Valkanover suggest that as physical bullying declined, teachers may have turned their attention more towards forms of bullying earlier seen as less serious, and become more sensitive to the nuances of verbal abuse. This may be so, but we should ask why they had not become more sensitive also to subtle forms of indirect aggression, which was seen as decreasing. It is possible that the differences in outcomes for the different kinds of bullying may be because some forms of bullying are more amenable to change following an intervention than others.

What aspect(s) of the interventions brought about the observed changes in bullying behaviour?

Granted that there is some persuasive (but not entirely consistent) evidence that the intervention resulted in less bullying being experienced by the children than would otherwise have been the case, one may ask what was it about the intervention that brought about the desired change. The main elements of the program may be summarised as follows:

- the provision of a series of guided discussions with kindergarten teachers on ways in which the problem of bullying could be addressed
- the need for teachers to be able to observe and identify bullying behaviour among young children
- the importance of teachers of young children working closely with the children's parents
- the need for limits and rules for the regulation of behaviour among young children, ideally generated with the support of the children themselves

- the systematic use of appropriate reinforcement (positive and negative) of social behaviour that needs to be encouraged or discouraged.

It is not possible in this study to identify which of the elements or combination of elements were crucial.

2. The Chicago Study, United States

Although this evaluative study conducted by McMahon et al (2000) did not specifically target bullying, it is one of the few studies to address the issue of aggressive behaviour (including bullying) among pre-school and kindergarten children and to provide results of an intervention designed to reduce such behaviour. For that reason it is included in this evaluation.

The program

The program employed was that devised by the Committee for Children (1991) and known as 'Second Step: a violence prevention program'. It had been used earlier in a study of children in elementary schools (Grossman et al 1997). It had been reported that the program had successfully induced a reduction in aggressive behaviour, as assessed by behavioural observations, in Grades 2 and 3 US children. Personnel involved in administering the program received an initial eight-hour training session from a trainer certified by the Committee for Children (1991).

The program teaches children skills that are designed to decrease impulsive and aggressive behaviour and increase pro-social behaviour. Its implementation in Chicago involved teachers and others (project directors, graduate students and teacher aides) working with small groups of children (5-8 in number) once or twice a week over 28 sessions. There were three units comprising training in empathy (12 lessons), impulse control (10 lessons) and anger management (six lessons). The empathy unit includes teaching children to recognise, experience and respect each other's feelings. The Impulse Control Unit emphasises the learning and practising of problem-solving skills. Anger Management focuses on the recognition of angry feelings and the use of anger reduction techniques. Activities included the use of puppets and role plays.

Participants

The participants were 56 children aged 3 to 5 years attending a pre-school (three classes) and 53 children aged 4 to 7 years (two classes) attending a kindergarten in the Chicago district.

Assessment

The assessment involved (i) interviews with children to assess their knowledge and skills related to empathy, impulse control and anger management (ii) teacher ratings of social skills and problem behaviours and (iii) behavioural observations of aggressive behaviours, both verbal and physical.

Research Design

The children were assessed twice: in autumn, prior to the intervention, and again in the following spring, after the completion of the intervention. No control or comparison group was used.

Outcomes

Interview data suggested that children gained knowledge in identifying feelings and facial cues, in thinking about how and why children might respond in conflict situations and in predicting the consequences of their responses. Behavioural observations (but not teacher observations) of aggression between children indicated a reduction in problem behaviours, more so among kindergarten children.

Critique

As indicated, this study does not focus on bullying itself, but is concerned with aspects of aggression, both verbal and physical, that typically accompany bullying. The program differed markedly from that of the Bernese study, especially in emphasising improvements in social competences, empathy and anger and impulse control, rather than the use of negative and positive sanctions to control undesirable behaviour.

Because the research design lacked a control group, one cannot entirely discount the possibility that the reported improvements would have occurred through maturation alone. (If we assume that behaviour of children becomes less positive in this age range over time, as the Bernese study suggests, the 'improvements' may be seen as valid.)

The failure to obtain consistent results between the teacher ratings and behavioural observations raises problems of interpretation. The authors suggest that teachers may have relatively fixed ideas of how their children behave and do not recognise change, especially if they had expected to see more radical change.

3. The Toronto Study, Canada

This study was undertaken by Pepler et al (1993, 1994) in Toronto, Canada. Like several other studies, it was based on the Norwegian model and involved a comprehensive approach which sought to gain the support and cooperation of students, teachers and the wider community and to provide more effective means of preventing bullying from occurring. The impetus for the project came from a preliminary survey conducted in 22 elementary schools in Grades 3 to 8 in Toronto. Some 49 per cent of students reported being bullied at least once or twice during the term. This work justified the subsequent anti-bullying intervention undertaken on behalf of the Toronto Board of Education.

The intervention was modelled on the Norwegian national intervention as reported by Olweus (1991, 1993). Bullying was conceived as a form of aggressive behaviour carried out in a situation in which there was an imbalance of power favouring the aggressor.

The program

Like the Norwegian program the intervention was planned to operate at different levels: in this case, the community (parents), the whole school, each classroom in the school and individual students. According to Pepler et al (1994) 'the basic component was the restructuring of the existing school environment to create a climate which defined bullying as inappropriate and unacceptable' (p79).

At the school level, appropriate policies to counter bullying were developed. Practical staff activities were encouraged, such as increasing supervision in the playground. At the classroom level, new curricula were introduced with the aim of developing pro-social attitudes and behaviours. For example, emphasis was placed upon promoting

discussion groups in which students listened respectfully to each other and showed tolerance towards those with contrary opinions. Drama activities, stories, novels and role plays were employed to increase understanding of the nature and harmfulness of bullying. Students were expected to intervene, where practicable, to discourage bullying when they saw it occurring. A peer conflict-mediation program was introduced in three of the four schools to assist in this process. At the community level, there was considerable reaching out to parents through parent/teacher association meetings and through school newsletters.

In reporting on the implementation of their intervention, the authors noted one significant deviation from the Norwegian model. In developing relevant school-wide codes of behaviour, it was determined that it was preferable to promote positive rights of individuals rather than to impose negative rules as applying to bullying behaviours. For example, 'we shall not bully others' (a rule suggested in the work of Olweus (1993)) became 'every student has a right to a safe and orderly school environment'. Such a rule, while being more positive, may nevertheless appear more vague.

Pepler et al (1993, 1994) highlight difficulties teachers encountered in distinguishing between 'rough and tumble play' and 'real bullying'. They note also the failure of some teachers to move beyond 'lecturing students' to creating a climate for constructive participatory discussion. They identified a tendency for some teachers to think of victims as children who were difficult to like and who elicited bullying from others whom they irritated. This is the only report on interventions to reduce bullying that draws attention to the limitations of some teachers in carrying out potentially effective methods of reducing bullying.

Assessment

The main method of evaluation was an anonymous questionnaire answered by students. This was a slightly modified version of the questionnaire used in the Norwegian study (Olweus 1991). Teachers were also asked to answer a questionnaire on their work with students on bullying at the classroom level. Qualitative data was also collected by means of face-to-face interviews with team leaders from the four schools.

Participants

With the cooperation of the Toronto Board of Education, three elementary schools and one senior school (Grades 7 and 8) were chosen for the intervention. The ages of the children in these schools ranged from 8 to 14 years. In total 458 girls and 440 boys took part in the study. The schools were selected because of their interest in the problem of bullying and willingness to commit time, energy and resources to the intervention.

Research design

The design principally made use of a pre-intervention and post-intervention assessment based on student responses to questionnaires. No control groups were employed.

Outcome

Feedback from students indicated that teachers had become more inclined to intervene in cases of bullying and to talk more to bullies and to victims of bullying. However, the outcomes with respect to reducing bullying were mixed. Results from responses to self report anonymous questionnaires 18 months after the intervention began showed a reduction in the numbers of children being bullied over the preceding five days but a

small non-significant increase in the proportion of children who had been bullied more than once or twice a term. Also significantly an increased proportion of children reported having bullied others more than once or twice a week during the term.

Critique

The Toronto intervention modelled on the highly successful Norwegian intervention was broad in scope and involved components that addressed bullying at four different levels. The outcome, however, was disappointing in terms of actually reducing bullying. Two indices of bullying frequency provided inconsistent results: one significantly positive (indicating fewer children were victimised) the other slightly negative (suggesting there may have been more children victimised). As in the Bernese study, more children reported bullying others after the intervention than before. The absence of a control group makes it impossible to know whether there would have been an even higher level of children bullying others if an intervention had not taken place. It would also have been useful to discover whether the intervention had different effects according to the age and gender of the children, but this is not reported.

In comparing the Toronto and the Norwegian studies, it should be noted that the latter was conducted nationally, not simply in four schools, and attracted considerable publicity which could have influenced the outcome.

4. The Sheffield Cooperative Learning Study, Sheffield, England

This is an unusual study in that it enabled the researchers (Cowie et al, 1994) to evaluate the impact of one particular kind of intervention on the incidence of bullying in schools. The intervention centred on the use of Co-operative Group Work (CGW) in creating positive changes in interpersonal relations between children that would make bullying less likely. The rationale was that if children learned to cooperate well with each other in the course of their school work they would relate better (and bully less) in other contexts. There is some empirical support for this supposition. Both children who bully and children who are victimised by their peers have been shown to have relatively uncooperative attitudes (Rigby, Cox and Black 1997).

Program

In-service training and support was provided for teachers involved in the project over a two-year period. In the initial phase, in the course of a two-day workshop, a three member training team introduced a range of CGW strategies. These included trust-building exercises, problem-solving groups, role playing, discussion groups, report back sessions and debriefing. Subsequently, teachers were asked to adapt what they had learned and employ it as a teaching method.

Participants

Three schools expressing interest in the project were involved. In total some 16 classes and 149 students between the ages of 7 and 12 years participated. Some children were in classes that participated in the first year only; some in second year only; and some in both years.

Assessment

Assessment of bully/victim status was based upon individual interviews with children who were shown photographs of other children in their class and asked to indicate whether they were bullied by other children, and whether they bullied other children. Where there was a relatively high consensus pointing to a child belonging to a particular category, he or she was classified accordingly.

Research Design

In two of the schools involved in the intervention, classes were matched with classes receiving a normal curriculum in the same year group. The third school provided three classes for which there were no controls. Altogether, 11 classes were allocated to the condition that experienced CGW; a further set of five classes served as controls.

Outcomes

For the most part, the results did not indicate changes in the tendency for children to bully others. Outcomes for intervention and control groups did not differ. There was, however, some indication that fewer children were being perceived as victims in the intervention group compared to the control group at the conclusion of the project. This suggests that there may have been some impact in helping some children to become less vulnerable through the acquisition of social skills in the classroom.

Critique

This study is unique in that it examines the impact of one particular approach to reducing bullying, that is, by providing a learning environment in which children learn to cooperate. The assumption is that cooperation in the classroom will result in changes in the behaviour towards one another in other places and at other times. The authors described the outcome after two years as somewhat disappointing. In their discussion of the results, the authors suggest possible reasons for the overall lack of success in reducing bullying by CGW. First, they note that some of the teachers were far from convinced that the method was appropriate because it involved a lessening in their control over student activities. It also involved the potential for disorder. Second, the schools chosen for the intervention were ones with a relatively high degree of racial tension which was difficult to counter. One implication from this study is that a high degree of acceptance of the appropriateness of the methods being used to produce changes in children's social relations may be necessary to produce optimum results.

5. The Finland Study, Turku and Helsinki

This intervention study conducted by Salmavalli (2001) was based in part upon the Norwegian intervention reported by Olweus (1991) and in part upon the work of Finnish researchers who have over the past five years focused upon the roles that children play as bystanders when bullying takes place in schools. That is, it focused on their roles as assistants or reinforcers of the bully or bullies, as outsiders who do not take sides but silently observe, or as defenders who take sides with the victim (Salmavalli et al 1996). The project has not, as yet, been reported in full. The currently available account describes the results obtained six months after the intervention began.

The project

Some 48 teachers met on four occasions between 1999 and 2000 to receive instruction and training on intervening to reduce bullying behaviour among children. Following the Olweus model, teachers were guided so as to apply anti-bullying

methods at three levels: the school level where anti-bullying policy was to be developed, the class level where curriculum work on bullying was undertaken with students, and the individual level where teachers worked with students involved in bullying. Although classes were encouraged to develop rules against bullying, in their work with bullies teachers were instructed in the use of non-punitive problem-solving approaches in which blaming was avoided. It was suggested that constructive responsible behaviour could be elicited along the lines recommended by Pikas (1989) using the Method of Shared Concern. The need for systematic follow-ups on individual cases was emphasised. In classroom discussion with students the roles of bystanders were examined and reflected upon.

Participants

In total 48 school classes (Grades 4, 5 and 6 with ages ranging from 9 to 12 years) from 16 schools participated in the program. Half the schools were from Helsinki, the capital of Finland, and half from Turku on the west coast of Finland. (Numbers of students participating have not been provided.)

Assessment

Bullying behaviour was assessed by means of a questionnaire completed by participating students. In this questionnaire physical, verbal and indirect forms of bullying were described and it was made clear that bullying involved an imbalance of power between aggressor(s) and victim, that is the former were more powerful. Questions were included to ascertain whether respondents had been bullied during the term and/or had bullied others. Students were also asked to nominate who in their class had been involved in bullying interactions, either as a bully or as a victim.

Research Design

A pre-test, post-test control group design was employed. In addition to the 48 classes included in the study to receive the intervention, an additional 24 classes were used as controls from eight randomly selected schools (four from Helsinki and four from Turku). The control classes were subsequently to receive the intervention, and the data from their students will be used in an extension of this project.

Outcome

The analyses conducted after six months provided some positive results. Self-reported frequencies of being bullied were significantly lower than those obtained at the pre-testing in the intervention group. Although not all classes showed a reduction, an overall reduction of 16 per cent was obtained. At the same time, reported victimisation in control classes increased by 15 per cent. The findings from this study were more positive for the younger students. For children aged 9-10 years the reduction was 34 per cent.

There were marked differences between the results for individual schools. One school, identified as having a highly committed staff who implemented all the elements of the proposed intervention, reported a reduction of more than 60 per cent. By contrast, some intervention schools reported an actual increase in reported peer victimisation.

The general decrease in reportedly being victimised was not accompanied by a reduction in the frequency of students being nominated as victims by their peers. There was no evidence that children saw themselves as bullying less when they were re-tested six months later. In fact, there was a slight increase in the percentage of students who reported they had bullied others during the term: from 13 per cent to 15.4 per cent.

Critique

This well designed study provided some positive results, showing a significant but not very large decrease in children being bullied by peers. This may be regarded as a very promising result, given it was found after only six months. But, as yet, no further report on longer-term effects has been provided. Again it should be noted that the evidence for a reduction in bullying is limited to the reports of children about being victimised.

Given the emphasis in this study upon teacher training in addressing bullying, it would have been useful to know about the level of previous teaching experience (or inexperience) of the teachers who took part.

6. The Texas Study (Expect Respect), United States

Unlike other programs reviewed in this section, this one served a double purpose: to address problems of bullying and sexual harassment. The authors expressed the view that, if left unchecked, student behaviour on school campuses would 'condition students to accept mistreatment in their peer relationships and lay the foundation for dating and domestic violence later in their lives' (Sanchez et al, in press, p.4). The project sought to improve the 'school climate' to render it less conducive to abusive behaviour.

The program

There were five components to this program:

- **Staff training**

This was aimed at increasing awareness of bullying and sexual harassment and improving teacher skills to address the problem.

- **Classroom education**

Teachers were expected to provide 12 sessions of instruction for their fifth grade students based upon a book by Sjoström and Stein (1996): *Bullyproof: a teachers guide to teasing and bullying for use with 4th and 5th grade students*. Emphasis was placed upon increasing knowledge about bullying and sexual harassment, improved ways of responding to abusive treatment from peers and encouraging students to take action as bystanders to stop bullying when they saw it happening,

- **Policy and procedure development**

This addressed both process and content. It called for the practical involvement of staff and parent representatives and the inclusion of procedures that would ensure efficient and consistent responding to incidents of observed or identified bullying. (No student involvement is mentioned.)

- **Parent education**

This was provided by means of seminars and newsletters to inform parents of school initiatives concerning bullying and to elicit their support.

- **Support services**

The project provided school counsellors with a manual of community resources to assist in dealing with problems involving individuals.

Participants

Over two years the program was applied in 12 schools. Children in Grade 5 (between 9 and 10 year olds) took part (747 in the first year and 362 in the second year). The authors indicate that the focus was on children in Grade 5 for several reasons: they were the oldest students in the junior school and, as such, could serve as models for younger children; these students were preparing to enter Middle School where they would soon be with older children and therefore more at risk from more serious forms of bullying and sexual harassment; the fifth graders were seen as being at an age at which they were already beginning to form boyfriend and girlfriend relationships and could benefit from lessons about safety and behaviour in close personal relationships.

Assessment

Self-report questionnaires completed by students were used in the assessment of knowledge of bullying, awareness of bullying at school and likelihood of students intervening on behalf of a victim of bullying at school. The survey was carried out three times a year: once before the intervention at the school, once in late autumn (October) and once in spring (the following March-April). In addition, focus group interviews were conducted separately with girls, boys and Grade 5 teachers. No assessment was made of the extent to which bullying (or sexual harassment) was taking place at any of the schools.

Research design

A pre-test post-test control group was employed. In the first year, six intervention and six matched control schools were used; in the second year, there were four intervention and four control schools. Control schools were carefully matched with intervention schools with respect to such factors as ethnicity, academic performance and socio-economic status. Only 60.1 per cent of the participating students were represented in the final analyses. The reduction was in part due to not all students being available for assessment on each of the three occasions of testing. This very substantial reduction reduced the extent to which results could be generalised to the student population.

Outcomes

There were no significant differences between the intervention and the comparison groups regarding changes in the levels of knowledge about bullying over time. (By contrast, the intervention group improved their knowledge of sexual harassment relative to the comparison group).

Following the intervention, students in the intervention group were more likely than those in the comparison group to report seeing bullying more often and in more places, and also to express a greater readiness to intervene personally and not tell adults about it.

While there was no measure of actual increase in interventions by students (as opposed to expressed intentions) focus groups of students and teachers independently reported some increased intervention by Grade 5 students.

At the same time, it was reported that some teachers saw an increase in the intervention group of so-called mild bullying. This was described by some teachers as 'either attention-seeking behaviour or normal testing of new limits typically demonstrated by students at this age' (p. 15).

Critique

This study is in some respects methodologically sophisticated, making use of an appropriate research design, careful matching procedures and rigorous statistical analyses controlling for a range of demographic variables. To some extent, the value of the results is offset by a very large loss of subjects (approximately 40 per cent) over the two years of the study. Given this loss, it is unclear how far the results can be generalised (perhaps the results apply to students who are good school attenders and are ready to answer questionnaires). The absence of any quantitative data indicating changes in actual bullying behaviour makes it hard to compare outcomes from this study with others.

The results indicating that there was no significant increase in knowledge of bullying in the intervention group are surprising given the emphasis on classroom instruction over 12 sessions on the topic. (The authors do not provide their knowledge test.)

The claims that more bullying was seen as happening after the intervention could be (and was) interpreted as evidence of a greater awareness of bullying, despite an absence of change in knowledge about bullying. An alternative explanation could be that there was actually more bullying occurring. Reported teacher judgments support this interpretation, but the evidence from this source appears to be somewhat subjective and not described in sufficient detail to be evaluated further.

The most unambiguously positive results were the increased tendency for students in the intervention group to say they would intervene. This was supported by opinions expressed by teachers that some students did so. Unfortunately the researchers did not seek to discover from individual students whether they intervened and, if so, under what circumstances and with what success. One cannot assume that all the interventions were appropriate or that the reported reduction in notifying adults was a desirable outcome.

7. The Norwegian Study, Norway

This was the first of the studies to examine whether bullying or peer victimisation in schools could be reduced. The campaign was inspired by the work of Dan Olweus (1991) who had already conducted surveys in Scandinavia which had indicated the extent and seriousness of the problem of peer victimisation. The campaign was organised by the Ministry of Education in Norway, involved all primary and junior high schools in that country and made use of ideas and materials developed by Olweus, according to whom the aim was '... to reduce as much as possible - ideally to eliminate completely - existing bully/victim problems in and out of the school setting and to prevent the development of new problems' (Olweus, 1993 p. 65). The effects of the program were evaluated in two areas of Norway: around Bergen and Rogaland. These are examined below separately as (a) the Bergen evaluation study and (b) the Rogaland evaluation study.

The program

The program was directed in the first place towards reducing 'direct bullying', as in open attacks, physical or verbal, and, in the second place, towards reducing 'indirect bullying', as in excluding people from their peer group. It comprised a number of elements described in a 32-page booklet for teachers and a 4-page folder of information for parents/families. There was a great deal of media publicity surrounding

the campaign which ensured that it was taken seriously. Subsequently this program has served as a blueprint for many interventions to reduce bullying in various parts of the world.

Implementation of the program began with a school conference day during which bully/victim problems were discussed with the staff at each school and with parents and selected students. Anti-bullying measures were seen as operating at three different levels: the school, the classroom and the individual. A coordinating committee composed of teachers, school administrators and representatives of parents and students was expected to drive the implementation process.

Broadly, countering bullying was seen as requiring a restructuring of the school environments in such a way as to discourage bullying behaviour while maintaining a warm, supportive school ethos. To this end the following activities were to be undertaken:

- regular meetings of teacher groups to examine ways in which the 'social milieu' could be improved so as to promote better peer-relations between children
- parent/teacher meetings to discuss the issue of bullying
- improved supervision of children during recess and lunch time
- encouragement of schools to improve playground facilities so that children would be more engaged in activities and less bored - and thus less likely to bully others.

At the level of the classroom the following practices were to be encouraged:

- devising class rules against bullying with the active cooperation of children
- role-playing situations that could help students deal better with bullying, for example, how bystanders could discourage bullying
- employing cooperative learning methods with children, so that individuals could gain personal satisfaction in the course of reaching group goals.

On dealing with individual children involved in bully/victim problems, it was recommended that:

- There should be a consistent use of non-hostile, non-physical sanctions when bullying occurs.
- Teachers should have serious talks with children who have bullied others and with their parents, and also the parents of the victim.
- Help should be offered to children who wish to respond more effectively to those who bully them, for example, through becoming more assertive.
- So-called neutral students (not involved in bully/victim problems) should be enlisted to help children with interpersonal difficulties.
- Where it was deemed necessary, it should be arranged for a child to be transferred to another class or to change schools.

7a The Norwegian Project as evaluated in the Bergen sample (the Bergen evaluation study)

Participants

The intervention focused on children in the Bergen area of Norway in Grades 4 to 9, that is, between the ages of 10 and 15 years. Thus the youngest children in this study were three or four years older than the oldest children in the age group of most interest in the present inquiry. The study was carried out between May 1983 and May 1985 and included approximately 2,500 children from 42 primary and secondary schools.

Assessment

An anonymous questionnaire was used to assess the extent of bullying before and after the intervention. This provided a simple definition of bullying, emphasising that it included physical, verbal and indirect forms of aggression and occurred in situations in which there was an imbalance of power. Assessments of bullying behaviour were made on three occasions: before the intervention, and eight and 20 months afterwards. Teachers were also asked to rate the level of bullying in their class.

Research Design

Rather than employ control groups, Olweus employed an age-cohort design whereby time-lagged comparisons between age-equivalent groups could be made. For example, baseline data for Grade 5 children at Time 1 (prior to an intervention) were compared to data for Grade 4 at Time 2 (after they had experienced the intervention and had subsequently reached Grade 5).

Outcomes

Olweus (1991) reported substantial reductions in children reporting being victimised by peers, in children reporting bullying others, and in student ratings of the numbers of children being bullied in their class. He claimed an approximate 50 per cent reduction in bullying across the age range of 10-14 years over an eight-month period; the reduction was slightly greater after 20 months. Similar effects were found for boys and girls.

Similarly, for reporting bullying of others, significant average reductions of 16 per cent for boys and 30 per cent for girls were reported after eight months. After 20 months the reductions were 35 per cent and 74 per cent respectively. Olweus does not report whether the reductions were greater for any specific age group.

Olweus further claims that there was no displacement of bullying from the school precincts on the way to or from school. There was also, he claims, a clear reduction in general anti-social behaviour such as vandalism, theft, drunkenness and truancy.

7b The Norwegian Project as evaluated in the Rogaland sample (the Rogaland evaluation study)

This evaluation undertaken by Roland (1993) took place in Rogaland three years after the Norwegian intervention had begun, It thus made use of post-intervention data gathered in Rogaland more than a year after the post-intervention data had been gathered by Olweus in Bergen.

Participants

Altogether approximately 7,000 students aged 8 to 16 years from 37 primary and secondary schools took part in a post-intervention survey. (Results for the younger children were not used in subsequent analyses as Roland considered data obtained from young children by means of questionnaires to be unreliable).

Assessment and research design

These made use of the assessment questionnaire employed in the Bergen study and the same research design. There was one important difference. In the Rogaland survey, interviews were conducted with teachers and head teachers from each school to ascertain the extent to which the schools had become involved in the project. A four-point scale was used ranging from 1 ('the school did nothing more than conduct the investigation') to 4 ('the school conducted the investigation, presented and discussed the results and demonstrated a serious and planned use of the package with pupils and parents').

Outcome

For boys, none of the results indicated a decrease in bullying. In fact, for boys, Roland (1989) reported an increase of 44 per cent in children reporting being bullied by peers and an increase of 24 per cent in reporting bullying others. For girls, there was some minor improvement: a 12.5 per cent decrease in being bullied; however, there was an increase of 14 per cent in bullying others. These results are in marked contrast to those reported by Olweus about one year earlier in another part of Norway.

Roland did, however, find evidence that those schools that took greatest pains to implement the program tended to get better results. This trend was particularly marked for primary schools.

Critique

The Norwegian study, as reported by Olweus on the basis of results from the Bergen sample, has been extremely influential in encouraging the development of programs implemented in many countries, including England, Canada, Germany, the USA, Spain, Belgium and Switzerland. The methodology employed in conducting the inquiry is seen as appropriate in conducting such studies. It does, however, contain one weakness. A time-lagged design, such as was used in this study, requires that different groups begin the intervention at different times. This means that they may not be subjected to the same external or 'historical' events; for instance, a news story about a child suicide due to bullying could break during a period when one intervention was in progress but not during another, and seriously affect sensitivity of school authorities and children to the issue of bullying.

The strikingly different results obtained in the Bergen and Rogaland evaluations are particularly problematic. One possibility is that the effects of the Norwegian program were short-term and reversed after 20 months. Roland has argued that there was a

trend towards increasing bullying in schools in Norway between 1983 and 1986 and that this may have accounted for the unexpected results. Another possible explanation is that the research team in Rogaland did not intervene to promote anti-bullying efforts of schools, while Olweus continued to be influential in schools in the Bergen area. Whatever the explanation, the differences between the results in the two evaluations draw attention to the difficulty of obtaining replicable results in this area of study.

8. The Sheffield Study, England

This was a project funded by the Department of Education in England and conducted under the leadership of Professor Peter Smith between 1990 and 1992 in the Sheffield area. Although this intervention was strongly influenced by the Norwegian study, it was developed independently and contained some different features.

The program

The program had as its core a requirement that schools involved in the study develop a so-called Whole School Policy to tackle bullying. It proposed that the effectiveness of an approach was greatly increased when there was maximum involvement of the whole school community and clear guidelines as to how the problem was to be tackled by a school. It required that each school produce a written document developed through consultation with the school community, explaining bullying and providing guidelines for staff, students and parents on how to deal with it. A half-day training session explaining what was needed was provided for head teachers.

It provided a wide range of optional methods that a school might utilise and for which it could receive support in so doing from the research team. These included:

- advice in developing and utilising resources as part of a school curriculum relating to bullying (the resources made available included videos on bullying and a novel, *The Heartstone Odyssey* by Arvan Kumar (1988), addressing through literature the issue of racist bullying)
- training for lunchtime supervisors to help them identify and discourage bullying
- training of interested staff in helping children to become more assertive
- training in helping students to act as peer-counsellors - their role being to listen rather than take any action
- training in working with bullies using the Pikas Method of Shared Concern
- support, if required, for the use of Bully Courts, that is quasi-legal courts run largely by students to bring bullies to trial and make recommendations for how they are to be treated (notably this last method was not adopted by any school in the study).

All schools provided an anti-bullying policy and adopted one or more of the methods suggested and explained to them.

Participants

Some 23 schools were included in the program (16 primary and seven secondary) comprising 6,500 students aged 8-16 years.

Assessment

An English translation of the questionnaire developed and used in the Norwegian study by Olweus was employed to gather data from students on the nature and extent of the

bullying they had experienced at their school. Interviews were also conducted with selected students and members of staff, enabling the researchers to estimate the degree to which anti-bullying initiatives had in fact been carried out.

Research Design

A pre-test, post-test control group design was employed, but with only four comparison schools (one primary and three secondary). During the time of the intervention all schools in the UK were receiving anti-bullying materials, so in fact, it was not possible to find true 'control schools' which were doing no anti-bullying work. The pre-test questionnaire was administered in late 1990 about nine months before the start of interventions and then in late 1992 four terms after the intervention. In 1993 there was a follow-up in four primary schools to discover whether any changes in the level of bullying had been sustained,

Outcomes

These were on the whole positive.

- Project schools showed a significant increase of 17 per cent in students who had **not** been bullied, and a significant decrease (14 per cent) in the frequency of students who were bullied.
- The average reduction in the percentage of children in primary schools reporting being bullied decreased by approximately 15 per cent and ranged up to 80 per cent. Among secondary school students there was no significant change.
- There was a significant decrease in the reported frequency of children bullying others of about 12 per cent in both primary and secondary schools.
- There was a significant increase in pupils reporting that they would not join in bullying others, more evident in secondary schools.
- The proportion of students who told a teacher they had been bullied increased by six per cent in primary schools and by 32 per cent in secondary schools.
- Evidence from one comparison primary school suggested that the lack of intervention could result in an increase in peer victimisation (its results were less positive than any of the 16 Project schools). However, the three comparison secondary schools produced widely disparate results and no clear conclusions could be drawn.
- Generally those schools assessed as having made more efforts in intervening showed the greatest reduction in bullying. For example, staff involvement (as assessed through interviews) correlated .62 ($p < .02$) with average level of being bullied over the 17 primary schools in the intervention.

A large majority of pupils in both primary and secondary schools (around 90 per cent) recognised the efforts made by their school, and most (around 80 per cent) felt that the bullying situation had improved.

Some positive long-term effects in reducing bullying were reported three years after the intervention had begun (Eslea and Smith 1998). Results for four primary schools in 1993 showed that that for boys the percentage reduction in bullying from the 1990 baseline had been maintained. However, in two schools the percentage of girls claiming to be victimised by peers was higher than before the intervention.

Critique

This intervention was characterised by an unusually wide range of methods being offered to schools. Only one proviso was insisted upon: an anti-school policy developed by the school community. It thus provided teachers with the opportunity to make informed choices regarding what might work in their school, with assistance from researchers. This could have the effect of increasing a sense of ownership on the part of a school. At the same time, because of the sheer heterogeneity of program content it was difficult to identify what methods employed by schools were most effective.

The results were positive overall with significant reductions in both being bullied and bullying others, though the reductions were only modest in size, compared to reductions reported in the Norwegian study in the Bergen area. Unlike the Norwegian study and the Bernese study, there was no emphasis upon the development of rules and the use of sanctions. The Method of Shared Concern, a non-blaming approach, proposed by Pikas (1989) was adopted by a substantial number of schools. More positive results were strongly associated with the extent to which schools had implemented anti-bullying methods generally.

Notably, results were generally positive for primary schools rather than for secondary schools, where reductions in bullying did not occur. This suggests that interventions are more likely to be successful when directed towards changing anti-social behaviour among younger children. This project suggests that there may be different long-term effects for interventions for boys and girls, with consistently positive results after three years being found for boys only. This may be due to the more covert nature of much of the bullying perpetrated and experienced by girls, which may be more difficult to counter and to sustain improvements.

9. The Home Office Study, Liverpool and London, England

This small-scale program was funded by the Police Research group of the Home Office and took place between 1991 and 1993 (see Pitt and Smith 1995).

Program

This program resembled the Sheffield study in promoting a whole:school approach. It required that a staff-student anti-bullying working party be set up with the aim of developing and implementing an anti-bullying policy. However, unlike its predecessor, it focused particularly on helping students to help themselves. A peer support program was introduced in the primary schools in which the program was applied. In secondary schools, students were trained in assertiveness and peer mediation skills.

Participants

There were four intervention schools (two primary and two secondary); no control groups were used. The ages of the students ranged from 8 to 16 years. The interventions were carried out in two large cities in England - Liverpool and London. Details of student numbers are not currently available.

Assessment and research design

A self-report questionnaire, similar to that used in the Sheffield study, was used to assess the incidence of peer victimisation before the intervention, after one year and then two years later. A pre-test, post-test design was used; there were no control groups.

Outcomes

Results were positive for both primary schools. The levels of bullying reduced by 10 per cent in the first year and by 40 per cent by the end of the second year of the program. The outcomes for the secondary schools were mixed. Over two years, bullying decreased in the Liverpool secondary school by 20 per cent, but increased in the London secondary school by seven per cent.

Critique

This small-scale study provides further evidence that bullying can be reduced over a two-year period, more especially among primary school students. In the absence of control groups in this study, it is unclear whether changes in levels of bullying could have been due to a maturation effect.

Again the results were more positive for the primary schools. In both of these there was a significant reduction in reported bullying. By contrast, one of the secondary schools showed a significant increase in bullying while the other showed a reduction.

An extension to the Sheffield study was undertaken between 1991 and 1993 by Pitt and Smith (1995) in Liverpool and London. Two primary schools and two secondary schools were targeted for an intervention that made considerable use of peer support and assertiveness training for children. The authors made use of a pre-test post-test design and reported reductions in bullying in both primary schools and a secondary school in Liverpool. But bullying was reported as having increased following the intervention in the London secondary school.

10. The Seville Study, Spain

This project was undertaken in Seville in 1995 under the leadership of Ortega with a team of researchers from the University of Seville in Spain (see Ortega and Lera 2000). Its nature and development were strongly influenced by the English Sheffield Project and, in fact, received direct help from former members of that group.

The program

The program was based upon the premise that positive relations between children (and therefore the elimination of bullying) can be promoted through the use of democratic management of interpersonal relations by the school authorities. Accordingly, rules were to be established by consensus; differences of opinion resolved through debate; conflicts settled through techniques of conflict resolution; and everyone was to be encouraged to take part fully in the life of the school. The school, it was felt, should also be concerned with helping the families of students where a special need was identified. In classrooms, cooperative learning was to be promoted; the school curriculum was to be used not simply to provide information but to educate students about their feelings and to promote pro-social attitudes and values. To such ends teachers were encouraged to use role play and introduce activities intended to increase respect for others and raise their self-esteem.

The program also included a focus on what could be done to help students who become involved in bully/victim problems. This included the teaching of techniques of conflict management, assertiveness and empathy training. Peer support activities were to be encouraged. Staff working with bullies could receive training in problem-solving methods, as utilised in the Method of Shared Concern (Pikas 1989). It is evident from this account that the use of positive rather than punitive means of reducing bullying received a lot of emphasis.

As in the Sheffield study, with which this study has greatest affinity, there was considerable flexibility in what schools could do to address bullying. For example, some schools included in their approach working closely with families whose children were involved in bully/victim problems; others concentrated on working with children in the school environment, employing direct intervention methods.

The implementation of the program was facilitated by the schools being provided with a series of 'tool bags' or resources and regular meetings between staff from the participating schools. They attended meetings with staff at their own schools fortnightly. Chairpersons from each school met with their counterparts from other schools every two months. In this way feedback on what was happening and monitoring of overall progress could be maintained.

Participants

Ten state-funded schools situated in relatively deprived areas of Seville took part in the intervention program. This included 910 students aged 8 to 18 years from primary to secondary schools.

Assessment

The assessment made use of anonymous questionnaires developed specifically for the study. It focused especially on the prevalence of children being bullied and bullying others and on children's attitudes to bullying. In addition, a shorter questionnaire was administered at the end of the intervention to appraise the perceived effectiveness of individual intervention methods.

Research Design

The program was evaluated in five of the schools by making use of a pre-test, post-test research design. (Students from the remaining five schools were not post-tested.) Data from control schools, involving 751 students, were provided from three schools in 1999-2000 (these students had not been pre-tested). Hence this was not a full pre-test, post-test control group design. Relevant data were obtained using three different and complementary methods. The first compared the responses of students at the schools made at the time of the pre-test and four years later. The second compared outcomes for the intervention schools with results for three control schools for which data were available at the time of the second testing. The third examined the judgments made by students at the end of the project regarding the effectiveness of different components of interventions.

Outcome

Comparisons of pre- and post-test results indicated a marked improvement in the relations between children over the four-year period. For example, the percentages of self-reported victims decreased from 9.1 per cent to 3.9 per cent and self-reported bullies from 4.5 per cent to 3.8 per cent. The proportion of bully/victims (those taking part in bullying and also bullying others) declined from 0.7 per cent to 0.3 per cent. A further analysis indicated that physical and verbal forms of bullying had maintained the same reported levels over the four-year period and that indirect bullying had actually increased! This inconsistency is hard to explain. The authors comment that the result may reflect 'a greater awareness of less visible forms of bullying' over time. They also provide some evidence that at the end of the project more students reported that the classroom was a 'safe place'. They do not report on changes in perceived safety in the playground, where most of the bullying takes place.

Reported comparisons between the intervention and the control groups of schools indicated that the latter had relatively high levels of reported victims, bullies and bully/victims, significantly more so than in the intervention group at the time of the second testing. The authors do not, however, provide information on the comparability of three intervention and control schools. We do not know, for instance, how many primary and secondary schools there were in each set. (Analyses have not been provided separately for primary and secondary schools.)

Estimates of the relative effectiveness of the methods of intervention based on student feedback, suggest that direct intervention with victims was most effective in reducing bullying, followed by 'education of feelings and values', 'democratic management of social relationships', and direct intervention with bullies.

Critique

This project was an ambitious one. It sought to examine fundamental features of school life that could influence the level of school bullying, for example, the democratic management of social relations in a school and the education about feelings and values. Judging from the reactions of students, the projects may have had significant effects in these areas. Some very positive outcomes are claimed, especially in reducing levels of victimisation and self-reported bullying.

However, as an evaluative study it has some weaknesses. The research design is incomplete: there is no indication of what might have happened over the four years in Seville schools in the absence of an intervention. In comparing intervention and control schools on the post-test results, there is no evidence provided on the equivalence or matching of the two 'treatment' conditions.

Disconcertingly, the data obtained from the comparison of pre-test and post-test results provide seemingly contradictory findings - an overall reduction in self-reported bullying is not matched by findings relating to changes in particular kinds of bullying. Although student perceptions of the effectiveness of different interventions to reduce bullying are of interest, they cannot be interpreted as reliable judgments of causal influences. Finally, there is no indication of whether younger or older students reacted differently to the intervention. The value of this study rests largely on the analyses of what may be needed in putting together an intervention study.

11. The Flanders Study, Belgium

The development of the Flanders anti-bullying intervention was based to a large extent on the Norwegian study of Olweus (1991) and to a lesser degree on information drawn from the Sheffield anti-bullying project (Smith and Sharp 1994). As in both of these earlier studies, the Flemish project began with an investigation of the prevalence of bullying in local schools. It was implemented in the Flemish part of Belgium between 1995 and 1997 (Stevens et al 2000).

The program

Like the Norwegian study, the intervention was directed at three different levels: the school in general, the classroom and individual students. Considerable emphasis was placed upon the development of clear rules against bullying behaviour, as far as possible through collaboration with students in classrooms. As in the Sheffield study, schools were asked to produce specific anti-bullying policies. These were to be developed through extensive consultation with stake-holders - teachers, non-teaching staff, students and parents. A good deal of attention was paid to the use of curriculum based activities involving the peer group.

The research team was quite directive on what was to be done. There were to be four sessions involving students. The first made use of a video titled *How was your day?* This was intended to raise awareness of the issue, stimulate discussion and lead to the formulation of rules to stop the bullying. The second session was devoted to how to react to bullying when it occurred. This session dealt with reacting to being bullied, supporting victims and seeking help from teachers when necessary. The last two sessions focused upon developing appropriate social skills to counter bullying by employing techniques of role play and listening to helpful feedback.

Part of the program was concerned with how staff members could help to change the behaviour of bullies and victims. For bullies, appropriate sanctions or 'consequences' were to be applied in relation to rules that had been infringed. Bullies were expected to make up for having hurt or threatened someone by doing something positive for the victim or for the class group. Bullies were required to make a contract with the teacher to ensure that this happened. At the same time, victims were provided with emotional support.

Some of the schools received continual support and guidance from the team of researchers and some did not, relying more on their own initiative. This was because the researchers were interested in whether providing sustained assistance to schools during the intervention improved outcomes.

Participants

The program was implemented in 18 primary and secondary co-educational schools. This included a total of 1,104 students aged 10-16 years.

Assessment

Assessment made use of the Olweus questionnaire to assess the extent of bullying in the schools. In addition, a *Life in School Checklist* (Arora 1994) was used to assess the incidence of types of aggressive behaviour and also positive interactions among students. The students were assessed using the self-report measures related to bullying behaviours and attitudes on three occasions: prior to the commencement of the intervention (October 1995), six months later (May 1996) and another year later (May 1997). The measures employed were shown to have, for the most part, a satisfactory level of internal consistency. Hence measurement error may be assumed to be small.

Research design

There were three experimental conditions: first, a group of 12 schools which implemented the intervention with the help of the researchers (Treatment With Support condition); second, a group of six schools which implemented the intervention without the help of researchers (the Treatment Without Support condition); and third, a group of six schools which served as a control group and did not make use of any interventions. There was equal representation of primary and secondary schools although the latter involved more students. For example, in the control group there were 92 students from primary schools and 151 from secondary schools. Because the researchers wanted to make use of the most powerful statistical test available to them (repeated measures analysis of variance) they randomly excluded from their final analyses, upon which their main conclusions were drawn, six schools from the set that implemented the intervention with the support of researchers. This was done on the grounds that the chosen statistical test assumes an approximate equality in the number of students in each condition. However, a consequence of this analytical approach was that a large amount of data was excluded from the main analysis.

Outcomes

The evaluation of the intervention provided some evidence supporting a reduction in the extent to which children bullied others overtime in the so-called Treatment Without Support condition and an increase in the Control condition. No change was found in the Treatment With Support condition. Thus overtime, in the absence of an intervention, primary school children tended to bully others more often. For all three groups in the primary schools, there was a reduction in the extent to which children reported being victimised. The greatest reduction was for students in the Treatment Without Support condition. None of these results was replicated in the secondary schools; in fact, no statistically significant results relating to changes in the extent of reported bullying were reported. It should be noted that although the results for the primary schools were statistically significant, the changes were quite small. For example, the reduction in reported bullying in the Treatment Without Support condition was of the order of only two per cent.

The results for the secondary schools are in marked contrast. No significant differences between the intervention groups and the control group were evident in developments over time. Levels of bullying and being bullied remained much the same over time for all three groups. The intervention appears to have no discernible effect on the prevalence of bullying.

One aspect of the analyses focused upon those students, the majority, who were rarely or never involved in bully/victim problems. Their roles are particularly important as potential bystanders. Here there appeared some differences between the younger and the older students. Broadly, over time the older students became less and less pro-victim; the primary school students became more and more pro-victim, regardless of treatment. Again, this may be construed as evidence that promoting supportive attitudes towards stopping bullying is more difficult among older students. At the same time it cannot be claimed that the interventions made any difference to attitudes over time for primary school children.

An examination of the outcomes for the two intervention groups (that which had the support of researchers and that which did not) indicated that there was little difference. Mean figures indicate that outcomes were slightly (but non-significantly) more positive (or less negative) for the 'Treatment Without Support' intervention condition. Given that

more resources were being utilised when the researchers were working as part of the intervention team, it would follow that their involvement in this way was not justified. Whatever advantage might have accrued from their involvement could have been negated by the perceived loss of autonomy and ownership of the intervention by the school.

Critique

The results support the view that a significant but relatively slight reduction in bullying can be accomplished among primary school students but not among secondary students. It appears that attitudes towards victims become increasingly unsympathetic as children progress from year to year in secondary school. Hence there appears to be more resistance to positive change among older students,

On the issue of whether it is desirable for the intervention team to provide continual support for the schools in the project, the verdict from this study appears to be negative. Outcomes were not more positive when the schools received assistance. Arguably positive effects from any help they received were negated by a loss in autonomy and control over the anti-bullying work they were doing.

12. The New South Wales Study, Australia

Although this study by Petersen and Rigby (1999) was conducted in a secondary school with students who were older (aged 11 to 16 years) than those of special interest in this report, it is included because it is currently the only published study of an intervention study in Australia. It was directed by the school counsellor, Libby Petersen.

Program

This study was based largely upon the assumption that a group of students who were dedicated to working with staff to counter bullying could contribute significantly in reducing the level of peer victimisation. Hence in this study there was a heavy emphasis upon student participation in anti-bullying action. This was in addition to the development of a school anti-bullying policy and the employment of a non-punitive method of dealing with bully/victim cases at the school, in this case the Method of Shared Concern of Anatol Pikas (1989).

The basis for student participation in anti-bullying activities was the formation of a voluntary student anti-bullying committee which worked closely with the school counsellor and produced a number of school-based initiatives. These included a peer helper group whose members identified children involved in bully/victim problems and offered help especially to victims. Training was provided for these peer helpers to help them listen in a caring sensitive way. They were encouraged to put children involved in bully/victim problems in touch with a teacher who would help using the Method of Shared Concern, but only if that was what students wished. In addition, there was a public speaking group that addressed meetings on anti-bullying problems; a poster group that publicised anti-bullying initiatives; and a drama group that presented performances to the school to raise awareness of the problem of bullying. Other student based activities included visiting feeder schools to reassure future students of their support and to welcome them when they arrived. This committee met regularly with the school counsellor during the course of the intervention.

Participants

A co-educational high school in New South Wales took part. There were 758 students in Years 7, 9, 10 and 11 in 1995 and 657 students in those same years in 1997.

Assessment

The intervention was assessed in two ways. The first method utilised a reliable self-report assessment tool, the Peer Relations Questionnaire (PRQ) developed by Rigby and Slee (1995). This was administered prior to the intervention and again two years later and provided self-reported information regarding the level of peer victimisation according to year and gender. The second method involved asking students a series of questions to be answered anonymously about the effectiveness of specified components used in the intervention.

Research Design

A pre-test post-test design was employed without a control group. The same questionnaire was administered after the program had been going for two years. Respondents were not identified in any way and comparisons were made in relation to the same class levels in 1995 and 1997.

Outcomes

The results indicated that while there was no overall reduction in bullying evident, there was a significantly lower proportion of Year 7 students reporting being bullied by peers than was the case two years earlier. In addition, significantly more students expressed the view that the school was a safe place for young people who find it hard to defend themselves; more students thought that teachers were interested in trying to stop bullying; fewer students reported being threatened with harm by other students; fewer students reported that they had taken part in group bullying; and fewer students indicated that they could 'use help from somebody to stop someone bullying them'. By contrast, among students in Year 9, there had been an increase in the proportion of students reporting being bullied compared to two years earlier at the same class level.

Student evaluations of the effectiveness of the methods indicated that the activities of the student anti-bullying committee were rated highest, especially the work of the school newcomers program for new enrolments. It was noted that on eight of the 10 programs evaluated, girls responded significantly more approvingly than boys. This is consistent with previous studies that have shown that girls are more positive in supporting action against bullying.

Critique

The absence of a control group made it impossible to ascertain whether the reported changes in the level of peer victimisation were induced specifically by the intervention program or were part of a general trend among schools in NSW. However, it seems unlikely that any trend towards the reduction in bullying in secondary schools state-wide would have affected the year groups differentially. We need therefore to account for the significant reduction in the Year 7 level which was contrary to what happened among students in higher levels of schooling. Arguably, the program was of particular relevance to students in the first year of high school. They were the principal beneficiaries of the efforts of the student Anti-Bullying Committee. The work of older students in providing them with support could have been effective, together with the use of a non-blaming approach to deal with bullying. This approach ensured that victims could inform when they were bullied without risking further recrimination from those who had bullied them. Younger students may also have been less resistant to the influence of the program than older students.

APPENDIX 5: SUMMARY OF EVALUATIONS

| Name of study | Nature of program | Participants | Assessment method (s) | Design | Main outcomes |
|--|---|---|---|---|---|
| 1. The Bernese study in Switzerland (Alsaker and Valkanover, 2001) | Modelled on Norwegian study reported by Olweus (1993) with emphasis on rules in the context of whole school approach. | Eight kindergartens (N=152) received the program. Another eight kindergartens (N=167) acted as controls. Children aged 5-7 years. | <ul style="list-style-type: none"> Teacher rated children Children nominated peers as bullies and/ or victims | Pretest, post-test, control group design. Data collected at the start and end of the school year. | Teachers indicated decrease in physical bullying and indirect bullying, but increase in verbal. Children indicated increase in victim and bully nominations in control group and a reduction in intervention group. |
| 2. The Chicago study, United States (McMahon, 2000) | The Second Step Program. Use of curriculum to develop knowledge and skills related to bullying behaviour. | Children in five classes in preschools and kindergartens aged 3-7 years (N =109). | <ul style="list-style-type: none"> Interviews with children Teacher ratings of skills and behaviour Behavioural observations | Pre-test, post-test design (after six months). | Increase in children's knowledge of conflict situations. Observed reduction in children's aggressive behaviour. |
| 3. The Toronto study, Toronto, Canada (Pepler et al, 1993, 1994) | Focused on the school, parents, classroom and individuals, following Olweus' model. | Four primary schools (N =898), students aged 8-14 years. | <ul style="list-style-type: none"> Student questionnaire | One pre and one post intervention (after 18 months). | Small reductions in reported level of being bullied. Increases in bullying others. |
| 4. The Sheffield Cooperative Learning study, Sheffield England (Cowie et al, 1994) | Implementation of methods of cooperative group work (CGW). | Two schools and 16 classes; a total of 149 students aged 7-12 years. | <ul style="list-style-type: none"> Children nominated peers as bullies and/ or victims from a list provided. | Intervention classes doing CGW(N=11) compared over two years with control classes (N=5). | No significant effect of intervention on bullying behaviour (increase in both groups). Small decrease in reporting being bullied in intervention classes |
| 5. The Finland study conducted in Turku and Helsinki (Salmivalli, 2000) | Teachers trained to: <ul style="list-style-type: none"> develop policy provide curriculum work with classes * intervene with individual bullies | Forty-eight school classes from 16 schools received program; 24 classes served as controls. Students aged 9 to 12 years. | <ul style="list-style-type: none"> Self-report questionnaire Peer-nominated questionnaire | Pre-test, post-test control group design; retest after six months. | Significant reduction (16%) in reporting being bullied; increase (15%) in control group. Decrease greatest among youngest students. |

APPENDIX 5: SUMMARY OF EVALUATIONS - CONT

| Name of study | Nature of program | Participants | Assessment method(s) | Design | Main outcomes |
|--|--|--|---|---|---|
| 6. The Texas study (Expect Respect), USA. (Sanchez, 2001) | Five components: <ul style="list-style-type: none"> • Classroom education • Staff training • Policy/procedure development • Parent education • Support services | Fifth graders (N=1,109) from six intervention and six comparison schools. Respondents about 11 years of age. | <ul style="list-style-type: none"> • Student questionnaires. answered on three occasions • Focus groups separately for girls, boys and teachers of 5th grade students | Pre-test, post-test control group design. (Note that only 60% of participants completed the three assessments.) | No significant increase in knowledge of bullying. Increased reporting of bullying occurring. Students reported they were more likely to intervene personally. |
| 7a. The Norwegian study (Olweus, 1991, 1993) conducted May, 1983-May 1985 as evaluated in the Bergen sample | Multi-pronged approach with emphasis upon rules and sanctions. | Forty-two primary/secondary schools with 2,500 students aged 11-14 years. | <ul style="list-style-type: none"> • Student questionnaires • Teacher ratings | Cross-lagged study with two post intervention assessments (after eight and 20 months). | Substantial reductions in self-reported bullying (up to 50%) and reduction in other anti-social behaviours. |
| 7b. The Norwegian study as evaluated in the Rogaland sample (Roland, 1989, 1993) conducted in 1986 | As reported by Olweus (see above). | Thirty-seven primary and secondary schools, with approximately 7,000 students. | <ul style="list-style-type: none"> • Student questionnaires • Interviews with teachers on degree of implementation of the program | Pre-test, post-test design. Re-testing after three years. | Increase in bullying over time, both in being bullied and bullying others. More positive outcomes for schools implementing programs fully. |
| 8. The Sheffield study England (Smith and Sharp, 1994; Smith, 1997; Eslea and Smith, 1998) conducted Nov 1990 - Nov 1992 | Whole school approach with many optimal components: in curricula and in treatment of individuals. | Sixteen primary and seven secondary schools. In total, 6,500 students. Also four comparison schools. Students aged 8-16 years. | <ul style="list-style-type: none"> • Student questionnaire • Staff interviews | Pre intervention and post intervention test 18 months later. | Reductions (around 15%) in bullying among primary school children, but not secondary. Increase in children informing when bullied. |

APPENDIX 5: SUMMARY OF EVALUATIONS - CONT

| Name of study | Nature of program | Participants | Assessment method(s) | Design | Main outcomes |
|--|--|---|--|--|---|
| 9. The Home Office study, Liverpool and London, England (Pitt and Smith, 1995) conducted 1991-1993 | Developed anti-bullying policy, emphasised peer support and assertiveness training. | Four intervention schools: two primary and two secondary in Liverpool and London. Students aged 8-16 years. | <ul style="list-style-type: none"> Self report student questionnaire | Pre intervention and . post intervention testing (two years after start of program). No control students | Reduction of bullying in both primary schools and one secondary school (the other secondary school showed increases). |
| 10. The Seville study, Spain (Ortega - in preparation) conducted 1995-2000 | Community approach with components to promote democratic values, cooperative group work, empathy and concern for others. | Ten primary and secondary schools. Students aged 8-18 years (N=910). | <ul style="list-style-type: none"> Student questionnaires assessing behaviour, attitudes and (at the end) effectiveness of aspects of the program | Some five schools used for pre and post intervention testing, compared to three control schools (post tested only). | Reported reduction overall in pupils involved in bullying (but not for specific kinds of bullying). Positive feedback reported from students. |
| 11. The Flanders study. Belgium (Stevens et al, 2000) conducted 1995-1997 | Adaptation of Norwegian (Olweus) model. | Eighteen schools; 1,104 students. (Note for main analyses only 12 schools used). Students aged 10-16 years. | <ul style="list-style-type: none"> Student questionnaire | Three conditions each with six schools: intervention with support; intervention without support; and control. Tested post intervention after eight and 20 months | Reduction in bullying in primary schools relative to controls. No change in secondary schools. No difference due to support from researchers. |
| 12. The New South Wales study, Australia (Petersen and Rigby, 1999) conducted 1995-1997 | Emphasis upon peer involvement in anti-bullying work and the use of the Method of Shared Concern by staff. | One secondary school. Students aged 12-17 years. | <ul style="list-style-type: none"> Student questionnaires to assess behaviour and effectiveness of program at the end | One pre and one post intervention test. | Reduction in bullying among the youngest students (Year 7) only. Older students registered an increase. |

REFERENCES

- Ahmed, E 1999, 'Shame management and bullying', Unpublished manuscript. Australian National University, Canberra.
- Alsaker, FD & Olweus, D 1992, 'Stability of self-esteem in early adolescence: a cohort longitudinal study', *Journal of Research in Early Adolescence*, 2, 123-145.
- Alsaker, FD & Valkanover, S 2001 'Early diagnosis and prevention of victimization in kindergarten', in J Juvonen & S Graham (eds), *Peer harassment in school*, Guilford Press, New York, 175-195.
- Arora, CMJ 1994, 'Measuring bullying with the "Life in School" checklist', *Pastoral Care Education*, 12, 11-15.
- Berne, S 1996, *Bully-Proof your child*, Lothian, Melbourne.
- Bernard, ME 2001, *Program Achieve* 2nd edn, Australian Scholarship Group, Oakleigh, Victoria.
- Campbell, DT & Stanley, JC 1963, *Experimental and quasi-experimental designs for research*, Rand McNally & Company, Chicago.
- Centre for Health Promotion Research 1999, *Friendly schools - Bullying Intervention Project: School Guidelines and Activities*, Curtin University of Technology, Perth.
- Committee for Children 1991, *Second Step: a Violence Prevention Curriculum, Pre-school - Kindergarten*, Committee for Children, Seattle, WA.
- Cowie, H, Smith, PK, Boulton, M & Laver, R 1994, *Cooperation in the Multi-ethnic classroom*, David Fulton, London.
- Crick, NR, Casas, JF & Mosher, M 1997, 'Relational and overt aggression in pre-school', *Developmental Psychology*, 33, 579-588.
- Curriculum Corporation 2000, *MindMatxers: A whole school approach to dealing with bullying and harassment*, Commonwealth of Australia, Carlton, Victoria.
- Egan, SK & Perry, DG 1998, 'Does low self-regard invite victimization?', *Developmental Psychology*, 34, 299-309.
- Ellis, A 1989, 'Rational-emotive therapy', in J Corsini & D Wedding (eds) *Current psychotherapies*, Peacock, Ithaca, IL.
- Eslea, M & Smith, PK 1998, 'The long-term effectiveness of anti-bullying work in primary schools', *Educational Research*, 40, 203-218.
- Field, EM 1999, *'Bully busting: how to help children deal with teasing and bullying'*, Finch Publishing, Sydney, NSW.
- Froschl, M, Spring, B & Mullin-Rindler, N 1998 *'Quit it: a teacher's guide to teasing and bullying for use with students in Grades K-3'*, NEA Professional Library, Washington, DC.
- Garrity, C, Jens, K, Porter, W, Sager, N & Short-Camilli, C 1997, *Bully-proof your school: a comprehensive approach for elementary schools*, Sopris West, Longmont, Colorado.
- Gribbin, M 1979, 'Granny knows best', *New Scientist*, 84, 350-351.

- Griffiths, C 1997, *What can you do about bullying: A guide for parents?*, Meerilinga Children's Foundation, West Perth, WA.
- Gropper, N & Froschl, M 2000, 'The role of gender in young children's teasing and bullying behaviour', *Equity & Excellence in Education*, 33, 48-56.
- Grossman, DC, Neckerma, HJ, Koepsell, TD, Liu, P-Y, Asher, KN, Beland, K, Frey, K & Rivary, FP, 1997, 'Effectiveness of a Violence Prevention Curriculum among children in elementary school', *The Journal of the American Medical Association*, 20, 1605-1611.
- Howard, A 1996, *Teaching social skills in early education: let's talk about it*, Department of Education and Training, Adelaide.
- House of Representatives Standing Committee on Violence in Schools 1994, *Sticks and Stones: Report on Violence in Schools*, AGPS, Canberra.
- Katz, LG & McClellan, DE 1997, *Fostering Children's Social Competence*, National Association for the Education of Young Children (NAEYC), Washington,
- Killen, M & Turiel, E 1991, 'Conflict resolution on pre-school interactions', *Early Education and Development*, 2, 240-255.
- Kochenderfer, BJ & Ladd, GW 1996, 'Peer Victimization: Cause or Consequence of School Maladjustment', *Child Development*, 67, 1305-1317.
- Kumar, A 1988 *Heartstone Odyssey*, Allied Mouse, Buxton.
- Linke, P 1998, *Let's stop bullying*, Australian Early Childhood Association Inc., Watson, ACT.
- Main, N 1999, 'Children's Perception of violence in early childhood', paper presented at the Children and Crime: Victims' and Offenders' Conference. Australian Institute of Criminology, Brisbane, 17-18 June.
- Maines, B & Robinson, G 1992, *Michael's story: the 'no blame' approach*, Lame Duck Publishing, Bristol.
- McMahon, SD, Washburn, J, Felix, ED, Yakin, J & Childrey, G 2000 'Violence Prevention: program effects on urban pre-school and kindergarten children', *Applied and Preventive Psychology*, 9, 271-281.
- Morrison, B 2001, 'From bullying to responsible citizenship: a restorative approach to building safe school communities'. Unpublished manuscript, Research School of Social Sciences, Australian National University, Canberra
- Lewers, R & Murphy, E 2000, *The hidden hurt*, Wizard Books, Ballarat.
- NCP 1999, *Pathways to prevention: developmental and early intervention approaches to crime in Australia*, National Crime Prevention (NCP), Attorney-General's Department, Barton, ACT
- NSW Department of Education and Training 1999, *The APEEL program (A Partnership Encouraging Effective Learning)*, NSW Department of Education and Training, Sydney.
- Olweus, D 1991, 'Bully/victim problems among school children: Basic facts and effects of a school-based intervention program', in DJ Pepler & KH Rubin (eds) *The development and treatment of childhood aggression*, Erlbaum, Hillsdale, NJ, 411-448.

- Olweus, D 1993, *Bullying at school*, Blackwell Publishers, Oxford and Cambridge, MA.
- Ortega, R & Lera, MJ 2000, 'The Seville Anti-Bullying in School Project', *Aggressive Behaviour*, 26, 113-123.
- Pepler, DJ & Craig, WM 1995, 'A peek behind the fence: naturalistic observations of aggressive children with remote audiovisual recording', *Developmental Psychology*, 31, 4, 548-553.
- Pepler, D, Craig, W, Ziegler, S & Charach, A 1993, 'A school-based anti-bullying intervention: preliminary evaluation', in D Tattum (ed) *Understanding and Managing Bullying*, Heinemann School Management, Oxford, England, 76-91.
- Pepler, DJ, Craig, WM, Ziegler, S & Charach, A 1994, 'An evaluation of an anti-bullying intervention in Toronto schools', *Canadian Journal of Community Mental Health*, 13, 95-110.
- Petersen, L & Rigby, K 1999, 'Countering bullying at an Australian secondary school', *Journal of Adolescence*, 22, 4, 481-492.
- Pikas, A 1989 'The Common Concern Method for the treatment of mobbing', in E Roland & E Munthe (eds) *Bullying: an international perspective*, David Fulton in association with the Professional Development Foundation, London, 91-104.
- Pitt, J & Smith, PK 1995, *Preventing school bullying*, Home Office Police Research group, 50 Queen Anne's Gate, London SW1H9AT.
- Rigby, K 1996, *Bullying in schools - and what to do about it*, Australian Council for Educational Research (ACER), Melbourne.
- Rigby, K 1997a, *Manual for the Peer Relations Questionnaire (PRQ)*, The Professional Reading Guide, Point Lonsdale, Victoria, Australia.
- Rigby, K 1997b, 'What children tell us about bullying in schools', *Children Australia*, 22, 2, 28-34.
- Rigby, K 2001 a, *Stop the bullying*, ACER, Melbourne.
- Rigby, K 2001 b, 'Health consequences of bullying and its prevention in schools', in J Juvonen & S Graham (eds) *Peer Harassment in school*, Guilford Press, New York, 310-331.
- Rigby, K 2002, 'New Perspectives on bullying', Jessica Kingsley, London (available in Australia through Astam books).
- Rigby, K, Cox, IK & Black, G 1997, 'Cooperativeness and bully/victim problems among Australian schoolchildren', *Journal of Social Psychology*, 137, 3, 357-368.
- Rigby, K & Slee, PT 1991, 'Bullying among Australian school children: reported behaviour and attitudes to victims', *Journal of Social Psychology*, 131, 615-627.
- Rigby K & Slee, PT 1993, *The Peer Relations Questionnaire*, University of South Australia, Adelaide, Australia.
- Roland, E 1989, 'Bullying: the Scandinavian tradition', in DP Tattum & DA Lane (eds) *Bullying in schools*, (pp 21-32) Trentham Books, Stoke-on Trent.

- Roland, E 1993, 'Bullying: a developing tradition of research and management', in DP Tattum (ed) *Understanding and Managing Bullying*, (pp 15-30) Heinemann Educational, Oxford.
- Salmivalli, C 2001, 'Combating school bullying: a theoretical framework and preliminary results of an intervention study', paper presented at an International Conference on Violence in Schools and Public policies, Paris, 2001 .
- Salmivalli, C, Lagerspetz, K, Bjorkqvist, K, Osterman, K, & Kaukiainen, A 1996, 'Bullying as a group process: participant roles and their relations to social status within the group', *Aggressive Behaviour*, 22, 1-15.
- Sanchez, E, Robertson, TR, Lewis, CM, Rosenbluth, B, Bohran, T, & Casey, DM (in press). 'Preventing Bullying and Sexual Harassment in Elementary Schools: The Expect Respect Model', *Journal of Emotional Abuse*.
- Sjostrom, L, & Stein, N 1996 *Bully proof: A teacher's guide on teasing and bullying for use with fourth and fifth grade students*, Wellesley College Center for Research on Women and the NEA Professional Library, Boston, MA.
- Slaby, RG, Roedell, WC, Arezzo, D & Hendrix, K 1995, *Early violence prevention: tools for teachers of young children*, National Association for the Education of Young Children (NAEYC), Washington, DC.
- Slee, PT 2000, *The P.E.A.C.E. Pack: a programme for reducing bullying in our schools*, 2nd edn, Flinders University, Adelaide.
- Smith, PK & Sharp, S (eds) 1994, *School bullying: Insights and Perspectives*, Routledge, London.
- Smith, PK, Morita, J, Junger-Tas, D, Olweus, D, Catalano, R & Slee, PT 1999, *The nature of school bullying: a cross-national perspective*, Routledge, London.
- Stevens, V, de Bourdeaudhuij, I, & Van Oost, P 2000 'Bullying in Flemish schools: an evaluation of anti-bullying interventions in primary and secondary schools', *British Journal of Educational Psychology*, 70, 195-210.
- Suckling, A & Temple, C 2001 *Bullying: a whole school approach*, ACER, Melbourne.
- Tattum, D & Tattum, E 1992, *Social Education and Personal Development*, David Fulton, London,
- Watts, V 1998, *An annotated bibliography of resources to assist schools in addressing school violence*, Central Queensland University Press, Rockhampton.