Our Winter 2009 issue looks at the cost-effectiveness of programs for preventing mental disorders in children. Given that new health dollars are always limited, we examine which prevention investments are likely to produce the best outcomes.

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Sticks, stones and name-calling …

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Do antibullying programs work?

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Bipolar medication under the microscope

Addressing Bullying Behaviour in Children

About the Children’s Health Policy Centre

As an interdisciplinary research group in the Faculty of Health Sciences at Simon Fraser University, we aim to connect research and policy to improve children’s social and emotional well-being, or children’s mental health. We advocate the following public health strategy for children’s mental health: addressing the determinants of health; preventing disorders in children at risk; promoting effective treatments for children with disorders; and monitoring outcomes for all children. To learn more about our work, please see www.childhealthpolicy.sfu.ca
This Issue

Overview

Sticks, stones and name-calling …

What is bullying? How often does it occur? And why does it so often go unrecognized? We answer the most commonly asked questions about this troubling form of aggression.

Feature

I spy with my little video camera

Join us for a look at the secret life of bullying — thanks to an ethnically diverse group of elementary students from Toronto who agreed to be videotaped while wearing wireless microphones.

Review

Do antibullying programs work?

Children need environments free from fear and intimidation. The research evidence is clear that adults can intervene to help end bullying.

Letters

Bipolar medication under the microscope

A reader asks about the long-term effects of medication to treat bipolar disorder. If you have a question or comment, please be sure to contact us by email or by regular post.

References

We provide all references cited in this edition of the Quarterly.

Links to Past Issues

How to Cite the Quarterly

We encourage you to share the Quarterly with others and we welcome its use as a reference (for example, in preparing educational materials for parents or community groups). Please cite this issue as follows:


Vancouver, BC: Children’s Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.
Overview

Sticks, stones and name-calling …

- When her Grade 6 teacher announced the assigned groups for the recycling project, a familiar feeling of dread overcame Sukkie. She knew that working with Ruby meant facing name-calling or being ignored altogether.
- Jamal used to be the first child out the door at recess, loving the freedom of running and playing. However, after repeatedly being pushed by Tyler on the playground, Jamal began to avoid leaving the classroom.
- Tears rolled down Tiffany’s face when she realized the nasty postings about her online had hit the offline world. She was devastated after seeing the same cruel words that had appeared on her computer screen now scrawled across her locker in permanent marker.

What is bullying?

Sukkie, Jamal and Tiffany share the experience of being bullied. Bullying, which has a variety of definitions, is distinguished from other forms of aggression by its three defining characteristics. Bullying involves repeated negative actions meant to inflict harm in a relationship where there is a power imbalance between the aggressor(s) and the victim. The power imbalance can arise from differences in physical size and strength or differences in social advantage, such as being popular or having support from other children. It can also arise from knowing others’ vulnerabilities.

Bullying, furthermore, may be direct or indirect. Direct bullying involves open attacks on a child, such as physical assaults, threats or teasing. Indirect bullying involves attempts to harm a child’s social position by acts including exclusion and gossip. Indirect bullying is often harder to detect than direct bullying.

The bully revealed

The Olweus Bullying Questionnaire is one of the most frequently used bullying measures. It uses the following definition of bullying:

We say a student is being bullied when another student, or several other students:

• Say mean and hurtful things or make fun of him or her or call him or her mean and hurtful names
• Completely ignore or exclude him or her from their group of friends or leave him or her out of things on purpose
• Hit, kick, push, shove around, or lock him or her inside a room
• Tell lies or spread false rumours about him or her or send mean notes and try to make other students dislike him or her
• And do other hurtful things like that.

When we talk about bullying, these things happen repeatedly, and it is difficult for the student being bullied to defend himself or herself. We also call it bullying when a student is teased repeatedly in a mean and hurtful way. But we don’t call it bullying when the teasing is done in a friendly and playful way. Also, it is not bullying when two students of about the same strength or power argue or fight.

How often does bullying occur?

Reported rates of bullying vary dramatically depending on how bullying is defined, the length of time it is measured and the age of children surveyed. Large differences have also been found between countries. A survey by the World Health Organization noted consistently high rates of bullying among adolescents from Lithuania, Latvia and Estonia and low rates in northern European countries such as Sweden. Canada ranked 10th to 19th highest out of 39 nations for rates of bullying others and 20th to 24th for rates of being bullied.

Although many children occasionally bully, only a small proportion (about 10%) engage in frequent bullying over an extended time. The following table details rates of bullying experienced by Canadian schoolchildren from three large-scale surveys.

Table 1: Prevalence of bullying in Canadian schools

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>Bullying Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td><strong>Location</strong></td>
</tr>
<tr>
<td>6–13*</td>
<td>Kingston and Toronto</td>
</tr>
<tr>
<td></td>
<td>4,743</td>
</tr>
<tr>
<td></td>
<td>Past 6 six weeks</td>
</tr>
<tr>
<td></td>
<td>1 or 2 times: 30%</td>
</tr>
<tr>
<td></td>
<td>&gt; 1 or 2 times: 6%</td>
</tr>
<tr>
<td></td>
<td>1 or 2 times: 38%</td>
</tr>
<tr>
<td></td>
<td>&gt; 1 or 2 times: 15%</td>
</tr>
<tr>
<td>10–11</td>
<td>Canada-wide‡</td>
</tr>
<tr>
<td></td>
<td>2,798</td>
</tr>
<tr>
<td></td>
<td>Unspecified**</td>
</tr>
<tr>
<td></td>
<td>Not assessed</td>
</tr>
<tr>
<td></td>
<td>Never: 68%</td>
</tr>
<tr>
<td></td>
<td>Rarely: 21%</td>
</tr>
<tr>
<td></td>
<td>Sometimes: 7%</td>
</tr>
<tr>
<td></td>
<td>Most of the time: 3%</td>
</tr>
<tr>
<td></td>
<td>All the time: 1%</td>
</tr>
<tr>
<td>11–15</td>
<td>Canada-wide‡</td>
</tr>
<tr>
<td></td>
<td>5,787</td>
</tr>
<tr>
<td></td>
<td>Past couple of months</td>
</tr>
<tr>
<td></td>
<td>At least once: 34%–40%†</td>
</tr>
<tr>
<td></td>
<td>At least twice: 5%–13%†</td>
</tr>
<tr>
<td></td>
<td>At least once: 28%–44%†</td>
</tr>
<tr>
<td></td>
<td>At least twice: 9%–21%†</td>
</tr>
</tbody>
</table>

* Study reported children’s grades, which were used to calculate approximate ages.
** Study surveyed children twice (1994–95 and again in 1996–97). Report rates are totalled over the two measurement periods.
† Because the survey provided separate data by ages, ranges provided are for the entire sample across ages.

With the use of technologies such as the Internet, bullying is no longer limited by proximity. The new phenomenon known as cyberbullying has been found to be a common experience. Rates among Canadian students from Grades 7 to 9 have ranged from 15% to 25% for bullying others and 25% to 57% for being bullied.9, 10

Does bullying change over time?

Most researchers have found that bullying declines as children get older, with bullying peaking around Grade 6.11, 12 Within this general trend, four distinct trajectories have been identified. A seven-year study of Canadian children found the following:
• 10% of children consistently engage in high levels of bullying
• 13% participate in moderate levels during their mid-childhood, with almost no bullying at the end of high school
• 35% engage in consistently moderate levels of bullying
• 42% of children almost never bully others

Developmental changes have an impact on age-related declines in bullying. Younger children may be particularly vulnerable to bullying because of their limited social skills. As children mature, they gain greater social understanding, increased capacity for empathy and less tolerance for aggression. Peer group norms also typically shift to reject bullying.

**Sugar and spice vs. puppy dogs’ tails**

Most research has found that boys engage in bullying significantly more often than girls regardless of developmental period. This pattern is consistent across cultures, with boys being significantly more likely to bully others in almost all countries assessed. When children bully, they typically target same-sex peers, with boys being less likely than girls to bully a victim of the opposite sex.

There are also noticeable differences in the types of bullying that girls and boys engage in. Boys’ bullying is characterized by more physical aggression, while girls’ bullying is more indirect and likely to involve exclusion.

Gender differences in victimization are more equivocal. Some studies have found more male victims while others have found no difference.

**If we know it’s a problem, why does it continue?**

Many factors have an impact on bullying. Individual child characteristics have been identified, such as high anger and low empathy among children who bully and limited assertiveness skills among children who are bullied. However, these factors alone do not explain the occurrence of bullying. Adults also significantly influence bullying. When adults fail to intervene in bullying, they teach children that they condone it. When parents use harsh punishment or adults engage in violence themselves, they teach children to use power and aggression in relationships.

When children who engage in bullying are identified early and are provided with consistent adult supervision, support and monitoring, future aggression can be prevented.
The costs of failing to intervene

When bullying occurs, children pay a significant price. Children who are bullied are at risk for impaired social development, mental and physical illnesses, suicide and school absenteeism. Children who bully others frequently suffer from high rates of mental disorders and from learning problems. Long term, these children are at risk for criminal activity involvement and employment instability. They also have an increased likelihood for ongoing violence, as bullying in childhood often transforms into other aggressive behaviours later in life, including dating violence. Additionally, even witnessing bullying can cause suffering, as it often leads to children feeling distress and discomfort.

There are also financial costs to bullying. Health problems, low academic achievement and criminal behaviours result in added costs to the health care, educational and justice systems.

How can we create healthy environments for kids?

Bullying is a problem that can be stopped when adults — at the family, school or community level — intervene appropriately. When children who engage in bullying are identified early and are provided with consistent adult supervision, support and monitoring, future aggression can be prevented. Children not directly involved in bullying can be taught responses to stop it and can learn attitudes that will help prevent it. School staff can create environments where bullying is regarded as unacceptable by all. Every adult can also model non-aggressive solutions to conflict so children are free from violence in their homes, schools and communities.

Promoting healthy relationships

A national strategy to prevent and reduce bullying in Canada has come to fruition through the creation of the Promoting Relationships and Eliminating Violence Network (PREVNet). This national network was developed because many activities undertaken to stop bullying lacked an empirical foundation, rigorous evaluations and a strategy for coordination and dissemination. PREVNet promotes healthy relationships for children and youth using education and training, assessment, prevention and intervention, and policy and advocacy. Its website, www.prevnet.ca, contains helpful resources for parents, practitioners and policy-makers.
I spy with my little video camera

Most empirical knowledge of bullying comes from surveys of children reporting on their personal experiences. Canadian researchers have added to our understanding by using technology to capture the sights and sounds of bullying from a child’s perspective. Unparalleled access to life in the classroom and in the schoolyard occurred when an ethnically diverse group of elementary students from Toronto agreed to be videotaped while wearing wireless microphones. Footage revealed that bullying occurred frequently inside and outside of schools, as indicated in the table below.

Table 2: Bullying rates in Canadian elementary schools

<table>
<thead>
<tr>
<th>Setting</th>
<th>Number of episodes per hour</th>
<th>Average duration in seconds (range)</th>
<th>Acts Verbal</th>
<th>Physical</th>
<th>Both</th>
<th>Number</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>5</td>
<td>2.4</td>
<td>26 (2–227)</td>
<td>53%</td>
<td>30%</td>
<td>17%</td>
<td>28</td>
</tr>
<tr>
<td>Schoolyard</td>
<td>3</td>
<td>2.4</td>
<td>26 (2–227)</td>
<td>42%</td>
<td>NR</td>
<td>NR</td>
<td>34</td>
</tr>
<tr>
<td>Schoolyard</td>
<td>20</td>
<td>4.5</td>
<td>34 (2–448)</td>
<td>50%</td>
<td>NR</td>
<td>NR</td>
<td>65</td>
</tr>
<tr>
<td>Schoolyard</td>
<td>32</td>
<td>6.5</td>
<td>38 (2–446)</td>
<td>50%</td>
<td>NR</td>
<td>NR</td>
<td>20</td>
</tr>
<tr>
<td>NR Not Reported</td>
<td></td>
<td>79 (7–720)</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>NR</td>
<td>120</td>
</tr>
</tbody>
</table>

A picture plus a thousand words

By recording the bullying, critical information was learned about how children and adults respond to witnessing it. Although most bullying episodes had only one bully (90%) and one victim (92%), the vast majority (between 85% and 88%) of instances involved additional children. As well, the more children witnessing the bullying, the longer the bullying lasted.32

In most episodes (81%), children witnessing the bullying responded in a way that reinforced it, such as joining in the aggression or watching it without responding to help the victim. Children rarely (between 11% and 19%) of episodes) intervened in the bullying. When they did, they were significantly more likely to address the bully than the victim. In most instances (57%) when other children intervened, they were able to effectively stop the bullying within 10 seconds. The effectiveness of children’s responses was significantly related to duration, with longer responses being...
less effective than briefer ones. Children typically first tried to intervene in a socially appropriate way and resorted to using aggression, such as name-calling and pushing, if not successful.

**What isn’t seen isn’t acted upon**

It is important to note that school staff failed to intervene in most bullying instances. In the classroom, teachers intervened in 18% of bullying episodes. In the schoolyard, rates of staff intervention ranged from 4% to 15%. The low rate of intervention was likely due, in part, to staff being unaware that bullying was occurring. When teachers and schoolyard supervisors were in “close proximity” to bullying, their intervention rates increased to 37% and 25%, respectively. When teachers were assessed as being aware of the bullying, their intervention rate jumped to 73%.

Bullying is a common occurrence in schools. Although frequently witnessed by other children, in most instances, peers do not or cannot respond in ways that stop it. This may occur for a variety of reasons, including children not knowing how to effectively intervene or children fearing reprisals if they do. When teachers are conscious of bullying, they act to stop it in most situations. However, their lack of awareness of most instances results in children continuing to suffer from bullying.

**From video image to viable intervention**

Bullying takes place in a social context. Schools characterized by high conflict, disorganization and low levels of supervision are likely to experience higher rates of bullying. In contrast, bullying is less frequent in schools where teachers stress the importance of preventing it and where children view their school as trusting, fair and pleasant.

Adults are responsible for creating school environments that minimize the likelihood of bullying. The first step in achieving this is to recognize that bullying is a problem and increase adults’ awareness of it. Next, adults must consistently take action to prevent bullying and intervene when it does occur. This consistent response increases children’s trust in adults’ ability to solve this problem. Adults must also teach children appropriate skills to stop bullying when they witness it. There are school-wide programs that effectively alter the school environment to reduce bullying. (See the Review article for our systematic review of antibullying interventions.) If our goal is to create schools that support children’s development and learning, implementing these types of interventions is vital.
Do antibullying programs work?

Bullying has long been a concern both within and outside of schools. The first nationwide antibullying program began in Norway in the 1980s following the suicides of two boys who were repeatedly bullied at school. Since that time, antibullying interventions have been launched in numerous countries, including Canada, Australia, Ireland, Switzerland and Spain. To provide the best available evidence on the impact of such programs, we identified the highest-quality research on antibullying interventions for this review.

Our systematic method for selecting research

We used systematic methods adapted from the journal *Evidence-Based Mental Health*. We limited our search to randomized-controlled trials (RCTs) published in peer-reviewed journals. Although RCTs are not the only form of useful knowledge, they are the gold standard in evaluating intervention effectiveness.

To identify studies, we first applied the following search strategy:

<table>
<thead>
<tr>
<th>Sources</th>
<th>The databases Medline, PsycINFO, CINAHL, CENTRAL &amp; ERIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Terms</td>
<td>Bully (including bullies, antibullying &amp; anti-bullying)</td>
</tr>
<tr>
<td>Limits</td>
<td>English-language articles published in 1998 through 2008</td>
</tr>
<tr>
<td></td>
<td>Child participants aged 0–18 years</td>
</tr>
</tbody>
</table>

Next, we applied the following criteria to ensure we included only the highest-quality studies:

- Clear descriptions of child characteristics, settings and interventions
- Intervention aimed at bullying
- Random assignment of children to intervention and control groups at outset
- Maximum dropout rates of 20% at post-test
- At least one bullying outcome measure
- Levels of statistical significance reported at post-test for all outcomes/groups

Because no assessed study would have met all of our usual inclusion criteria, we eliminated three for this review. We did not require studies to report outcomes at three-month follow-up because multi-level, whole-school

Programs were more successful at reducing rates of bullying perpetration than rates of victimization.

“Schools making the greatest efforts in implementing antibullying programs have the best results.”
interventions typically do not have a predetermined end point. Requiring a follow-up period would have eliminated these types of interventions from this review. Additionally, because bullying is often hidden from adults, we did not require bullying outcome measures from two sources. We also did not require the reporting of validity and reliability data for bullying measures, as all of the studies we included used measures with good face validity (i.e., items were clearly relevant to bullying, including children reporting on bullying experiences generally or by specific acts). Two different team members assessed each retrieved study to ensure accuracy.

**A global perspective on antibullying interventions**

Of 36 articles retrieved for assessment, eight RCTs (described in 10 articles) met our criteria. Two RCTs evaluated multi-level, whole-school programs,\(^{37, 38}\) three evaluated classroom-based programs,\(^{23, 39-41}\) and three evaluated two types of family therapy.\(^{42-44}\) Of the five targeted interventions, four were targeted to children who engaged in bullying.\(^{41-44}\) The other targeted program included children disliked by peers, victimized by bullies or who experienced social anxiety.\(^{39}\) Of the three universal interventions — those directed at entire student populations — two were whole-school programs\(^ {37, 38}\) and one was a classroom-based program.\(^ {25}\)
### Table 3: Antibullying programs assessed

<table>
<thead>
<tr>
<th>Program</th>
<th>Title, description and aim</th>
<th>Content</th>
<th>Level</th>
<th>Age range</th>
<th>Duration</th>
<th>Gender</th>
<th>Number*</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behavioural Program:</strong></td>
<td>Classroom-based behavioural program to reduce bullying</td>
<td>20 60-minute group sessions using a token economy, modelling, role-playing and homework</td>
<td>Will</td>
<td>12–16</td>
<td>10 weeks</td>
<td>100% male</td>
<td>Targeted</td>
<td>South Africa</td>
</tr>
<tr>
<td><strong>Brief Strategic Family Therapy:</strong></td>
<td>Clinic-based family intervention to reduce anger, improve behaviour and improve health-related quality of life</td>
<td>12 100-minute family sessions using joining, identifying strengths and restructuring maladaptive interactions</td>
<td>Will</td>
<td>15</td>
<td>3 months</td>
<td>100% female</td>
<td>Targeted</td>
<td>Germany</td>
</tr>
<tr>
<td><strong>Brief Strategic Family Therapy:</strong></td>
<td>Clinic-based family intervention to reduce anger, improve behaviour and improve health-related quality of life</td>
<td>12 100-minute family sessions using techniques targeted at repetitive patterns of family interactions</td>
<td>Will</td>
<td>14–15</td>
<td>3 months</td>
<td>100% male</td>
<td>Targeted</td>
<td>Germany</td>
</tr>
<tr>
<td><strong>Bullies and Dolls:</strong></td>
<td>Classroom-based educational program to reduce violence and aggression</td>
<td>3 180-minute interactive classroom lessons using role-playing, group discussion, focus groups, videos and a booklet</td>
<td>Universal</td>
<td>11–15</td>
<td>3 weeks</td>
<td>50% male</td>
<td>Intervention: 131</td>
<td>Italy</td>
</tr>
<tr>
<td><strong>Gatehouse Project:</strong></td>
<td>Whole-school, multi-level, primary prevention program to promote emotional and behavioural well-being</td>
<td>20” 45-minute classroom lessons using discussion groups and collaboration; staff training/support; implementing health team and antibullying policies</td>
<td>Universal</td>
<td>13–14</td>
<td>3 years</td>
<td>47% male</td>
<td>Intervention: 1,335</td>
<td>Australia</td>
</tr>
<tr>
<td><strong>Integrative Family Therapy:</strong></td>
<td>Clinic-based family intervention to reduce anger, improve behaviour and improve health-related quality of life</td>
<td>17 90-minute family sessions using systematic, psychodynamic, Gestalt behavioural and psychodrama techniques</td>
<td>Will</td>
<td>14–16</td>
<td>6 months</td>
<td>100% male</td>
<td>Targeted</td>
<td>Germany</td>
</tr>
<tr>
<td><strong>S. S. Grin:</strong></td>
<td>Classroom-based social skills program to reinforce pro-social attitudes and behaviour</td>
<td>8 50- to 60-minute group sessions using didactic instruction, modelling and role-playing</td>
<td>Will</td>
<td>7–10</td>
<td>2 months</td>
<td>51% male</td>
<td>Targeted</td>
<td>United States</td>
</tr>
<tr>
<td><strong>Steps to Respect:</strong></td>
<td>Whole-school, multi-level intervention to reduce bullying</td>
<td>10 60-minute classroom lessons using direct instruction, discussion and skills practice; staff training; parent information and school-wide guide</td>
<td>Universal</td>
<td>8–11</td>
<td>1 year</td>
<td>51% male</td>
<td>Intervention: 549</td>
<td>United States</td>
</tr>
</tbody>
</table>

* Reported sample sizes are at point of randomization with the exception of Bullies and Dolls, which only reported post-attrition sample size.
** 20 was the median lesson number for first year (with one school not using the curriculum in year 1). Lesson number and hours in subsequent years were not reported.
† 40 hours per year.
‡ 2 sessions plus manual.
Which interventions showed success?

All the family therapy interventions were successful in reducing bullying, whereas school-based programs produced mixed results (see Table 4). There was no clear pattern of success among the school interventions based on program level (targeted versus universal), comprehensiveness (single-classroom component versus multi-level, whole-school program), duration or participant age. Programs were more successful at reducing rates of bullying perpetration\textsuperscript{38, 42–44} than rates of victimization.\textsuperscript{25}

Table 4: Bullying outcomes by program

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Significant* Bullying Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At post-test</td>
</tr>
<tr>
<td><strong>Behavioural Program</strong>\textsuperscript{41} Targeted classroom-based behavioural program to reduce bullying</td>
<td>0 of 2 bullying others</td>
</tr>
<tr>
<td><strong>Brief Strategic Family Therapy</strong>\textsuperscript{43} Targeted clinic-based family intervention to reduce anger, improve behaviour and improve health-related quality of life</td>
<td>1 of 1 bullying others</td>
</tr>
<tr>
<td><strong>Brief Strategic Family Therapy</strong>\textsuperscript{44} Targeted clinic-based family intervention to reduce anger, improve behaviour and improved health-related quality of life</td>
<td>1 of 1 bullying others</td>
</tr>
<tr>
<td><strong>Bullies and Dolls</strong>\textsuperscript{25} Universal classroom-based educational program to reduce violence and aggression</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Gatehouse Project</strong>\textsuperscript{37, 45} Universal whole-school, multi-level, primary prevention program to promote emotional and behavioural well-being</td>
<td>0 of 1 being bullied</td>
</tr>
<tr>
<td><strong>Integrative Family Therapy</strong>\textsuperscript{42} Targeted clinic-based family intervention to reduce anger, improve behaviour and improve health-related quality of life</td>
<td>1 of 1 bullying others</td>
</tr>
<tr>
<td><strong>S. S. Grin</strong>\textsuperscript{39} Targeted classroom-based social skills program to reinforce pro-social attitudes and behaviour</td>
<td>0 of 2 being bullied</td>
</tr>
<tr>
<td><strong>Steps to Respect</strong>\textsuperscript{38} Universal whole-school, multi-level intervention to reduce bullying</td>
<td>0 of 2 being bullied</td>
</tr>
</tbody>
</table>

NA Not assessed
* Significant improvements defined as \( p \leq .05 \).
** Significant for older students (third year of middle school or first year of high school) but not younger students (first or second year of middle school).

There were four successful interventions (two family therapy, one classroom-based and one whole-school, multi-level intervention):

- **Brief Strategic Family Therapy**\textsuperscript{43, 44}
- **Integrative Family Therapy**\textsuperscript{42}
- **Bullies and Dolls**\textsuperscript{25}
- **Steps to Respect**\textsuperscript{38}
All four interventions produced significant reductions on at least one bullying measure. Three studies also provided follow-up data. *Integrative Family Therapy* (at one-year follow-up) and *Bullies and Dolls* (at four-month follow-up) remained effective in reducing bullying. Although 50% of the adolescent girls who participated in *Brief Strategic Family Therapy* continued to not engage in bullying at one-year follow-up (compared to 15% in the control group), the difference was not large enough to reach statistical significance.

**Achieving gains beyond bullying reduction**

Beyond reducing bullying, many programs produced other positive outcomes including reductions in anger and risky behaviours along with improvements in quality of life and interpersonal interactions (see Table 5).

**Table 5: Additional positive outcomes by program**

<table>
<thead>
<tr>
<th>Brief Strategic Family Therapy</th>
<th>Integrative Family Therapy</th>
<th>S. S. Grin</th>
<th>Steps to Respect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger ↓</td>
<td>Anger ↓</td>
<td>Aggression ↓</td>
<td>Interaction skills ↑</td>
</tr>
<tr>
<td>Cortisol secretion levels ↓</td>
<td>Health-related life quality ↑</td>
<td>Anxiety symptoms ↓</td>
<td></td>
</tr>
<tr>
<td>Interpersonal problems ↓</td>
<td>Interpersonal problems ↓</td>
<td>Depressive symptoms ↓</td>
<td></td>
</tr>
<tr>
<td>Risky behaviours* ↓</td>
<td>Risky behaviours* ↓</td>
<td>Leadership skills ↑</td>
<td></td>
</tr>
</tbody>
</table>

* Including drug use, smoking, binge drinking, excessive media use, sex without condom, sex while using drugs/alcohol and sexual disinhibition.

The three interventions that failed to reduce bullying — *Behavioural Program, Gatehouse Project* and *S.S. Grin* — were all school based. Many factors likely played a role in their lack of success in this domain. Two of the three schools using the *Behavioural Program* were set in violence-ridden communities in South Africa. The violence experienced in these schools was extreme, including sexual assaults and stabbings. The authors acknowledged the need to address larger issues of poverty and community violence. When children’s basic security and safety is not ensured, much more than antibullying programs is obviously needed.

Although bullying was an “important focus” of the *Gatehouse Project*, this primary prevention program’s major aim was to increase levels of emotional well-being and reduce rates of substance use. Consequently, there may not have been enough focus on bullying to reduce its occurrence.

*S.S. Grin*, a social skills training program, was the only targeted program focused on victims of bullying (along with those disliked by peers and those with social anxiety) rather than children who bullied others. Although the program failed to reduce bullying, it was effective at increasing participants being liked by peers, reducing negative peer affiliations, and increasing self-esteem and self-efficacy. These gains were sustained, and for some variables

*We need to create climates in which bullying is viewed as inappropriate and unacceptable.*
even further improved, at one-year follow-up. This finding (coupled with the results from the other RCTs which found efforts at reducing bullying perpetration were more successful than efforts at reducing victimization) suggests that targeted programs may be more successful when focused on children who bully, rather than the victims.

How we all can make a difference

Children need environments free from the fear and intimidation that bullying creates. The research evidence is clear that adults can intervene to help end this significant problem. Within families, parents can encourage positive social behaviours by modelling non-aggressive problem-solving strategies, such as resolving conflicts through discussion. In addition to providing effective family therapy to reduce bullying, practitioners can assist by providing parent training and support to reduce aggression early on, before bullying even begins.46

Educators also have a significant role in reducing bullying, given the number of successful school-based antibullying programs. By including all students and staff, whole-school programs have the added advantages of not stigmatizing children involved in bullying and of not indirectly encouraging aggression by bringing aggressive children together.26 The effort adults make in implementing these programs is critical, for numerous studies have found that schools making the greatest efforts implementing antibullying programs have the best results.26, 35, 47 Support from clinical practitioners can help in implementing such programs.

To reduce bullying, efforts to eradicate it must extend beyond individual families and schools to target factors promoting bullying at the societal level. We cannot expect a child to stop pushing on the playground when he has to live in a community where he is regularly exposed to crime, violence and poverty. Paralleling the goals of whole-school interventions, we need to create climates in which bullying is viewed as inappropriate and unacceptable. All community members — including parents, educators, practitioners and policy-makers — have a collective responsibility to create healthy environments for children. 

“All the family therapy interventions were successful in reducing bullying.”
Bipolar medication under the microscope

To the Editors:

Your review of medications used to treat childhood bipolar disorder highlighted important information about the side effects associated with their short-term use. Given that children who are prescribed these medications typically use them over extended time periods, what is known about their long-term risks?

Martha Baldwin
Surrey, BC

Our original review examined five medications that were studied between three and seven weeks. To answer the question about the long-term risks of these medications, we conducted another systematic search for published reviews on the topic. Data was only available on the long-term effects of lithium use in children. However, we also describe below the short-term side effects of three other drugs covered in our original review, to provide additional information about the risks of medications commonly used to treat childhood bipolar disorder.

What we know

Lopez-Larson and Frazier conducted a 30-year systematic review of peer-reviewed publications on lithium and anticonvulsants use in adolescents with psychiatric disorders. They found that prolonged lithium use was associated with kidney problems, including glomerulosclerosis. Another review, which included data from adults, noted that long-term lithium treatment can produce lithium toxicity, characterized by multiple symptoms including gastrointestinal, neurological and circulatory problems. Even after a brief period of use, lithium can produce side effects. Common ones include dizziness, gastrointestinal symptoms, frequent urination, thirst, enuresis, tremor, weight gain and fatigue. These side effects are typically mild to moderate. However, more serious side effects, such as hypothyroidism and cardiac conduction abnormalities, can occur.

Among the anticonvulsant medications, valproate use is commonly associated with gastrointestinal symptoms, headaches, sedation, dizziness, increased appetite, weight gain, rash, muscle weakness and hair loss. Rarely, thrombocytopenia, hepatic toxicity and polycystic ovaries can occur, as can damage to the pancreas.
Use of the anticonvulsant carbamazepine may produce side effects. Common ones include transient leucopenia, rash, dizziness, double vision and headaches. Serious side effects can include the syndrome of inappropriate antidiuretic hormone, neutropenia, agranulocytosis and anemia.

The anticonvulsant topiramate can also produce a number of side effects. Common ones include cognitive disturbances (such as word-finding difficulties and poor concentration), gastrointestinal distress, sedation, decreased appetite, weight loss and paresthesia (tingling and numbness).

More rigour is needed

Based on the available evidence, Lopez-Larson and Frazier concluded that “double-blind, placebo-controlled trials of lithium and anticonvulsants are greatly needed as clinical use of these agents has risen without sufficient evidence supporting their efficacy in the pediatric population.” This is consistent with our own conclusions calling for more rigorous evaluations of medications being used to treat childhood bipolar disorder. Additionally, given recent controversies regarding research funded by pharmaceutical companies, independent medication evaluations are especially needed. Any child currently being prescribed these medications needs to be carefully monitored by a qualified professional.
References

B.C. government staff can access original articles from BC's Health and Human Services Library.


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