Bullying: Its prevalence, effects and interventions

Bullying and victimisation among school-age children are recognised as a major public health problem. In its 2009 report on the Australian Covert Bullying Prevalence Study (ACBPS), the Child Health Promotion Research Centre of Edith Cowan University reported that just over one quarter (27 per cent) of school students aged 8 to 14 years were bullied and 9 per cent bullied others on a frequent basis – every few weeks or more often (Cross et al, 2009).

Bullying is associated with a host of detrimental effects, including:
- loneliness (Nansel et al, 2001);
- low self-esteem (Jankauskiene et al, 2008; Salmivalli et al, 1999);
- anxiety, depression (Kaltiala-Heino et al, 2000);
- suicide ideation (Kaltiala-Heino et al, 1999);
- impaired academic achievement (Nansel et al, 2001); and
- poorer physical health (Wolke et al, 2001).
Interventions – the story so far
The high prevalence of school bullying and the detrimental physical, social, psychological and academic harms linked with its occurrence have prompted research investigating ways in which schools can intervene, to reduce and manage this form of aggression. Various methods have been suggested, ranging from individual skills-based approaches, to class and peer group initiatives, but growing evidence suggests that multidisciplinary whole-of-school interventions are the most effective, non-stigmatising means to prevent and manage bullying behaviour (Cross et al., 2010; Rigby and Slee, 2008; Smith, Ananiadou and Cowie, 2003; Stevens, Bourdeaudhuij and Van Oost, 2001; Veerman and Carroll, 2007).

Farrington and Ttofi (2009) analysed 44 of the highest-quality evaluations of school-based bullying programs implemented from 1983 to May 2009. This review concluded that school-based bullying programs, especially those that provide a comprehensive approach, are the most effective in reducing the perpetration of bullying and victimisation, achieving on average a 20–23 per cent reduction in rates of perpetration, and a 17–20 per cent reduction in rates of victimisation.

However, there remain ongoing concerns about the conduct of interventions to ensure they provide the strongest possible evidence base to achieve positive outcomes.

Growing evidence suggests that multidisciplinary whole-of-school interventions are the most effective, non-stigmatising means to prevent and manage bullying behaviour

A new manifestation of bullying in the digital world
Due to the rapid growth of Information and Communication Technologies (ICTs) over the past decade, students are now using mobile phone and internet devices as a platform to bully others. Although advances with technology have provided advantages such as educational opportunities and social support, these benefits are complicated by such adverse effects of ICTs as cyber bullying. The greater anonymity and breadth of audience provided by mobile phones and the Internet, as well as young people’s potentially unlimited access to technology, together with the lack of authority in cyberspace, distinguish this new manifestation of bullying (Falconer, 2010; AUCRA Senate Inquiry, 2010).

Cyber bullying has been defined as an individual or a group using ICT repeatedly and intentionally to harm a person who finds it hard to stop this bullying from continuing (Belsey, 2006; Smith et al., 2008). Examples might include when a person

- sends or posts nasty or threatening emails or messages to someone on the Internet, eg, on MSN, or by mobile phone;
- posts or sends mean or nasty comments or pictures about someone to websites, eg, to MySpace or Facebook, or to others’ mobile phones;
- deliberately ignores or leaves someone out of things over the Internet;
- pretends to be someone else online, to hurt that person.

A person may be cyber bullied when derogatory or harmful text messages/pictures/video-clips/emails are sent directly to her/him, or indirectly, when messages/pictures/video-clips/emails are sent to or posted on the Internet, about that particular person (Spears et al., 2009).

Definitional issues can create problems for school staff members when they are deciding where a case of cyber bullying has taken place. For instance, the intention to harm, which is a defining characteristic of face-to-face bullying, is more difficult to determine in cases of cyber bullying. The target may be unsure or misinterpret the true intent of the message, while the sender may be unaware of the message’s impact (Falconer, 2010).

Estimates of the prevalence of cyber bullying have varied considerably across different studies...
School-based strategies to address cyber bullying

Internationally, ranging from 1–62 per cent of students reporting cyber victimisation and 0.8–53 per cent reporting cyber perpetration. These prevalence rates appear to vary largely due to use of different definitions of cyber bullying, the types of media studied, and the reference time period – for example, ‘ever’, ‘during the last year’, ‘last term’, and so on (see Smith and Slonje, 2009, for a review).

The Australian Covert Bullying Prevalence Study (ACBPS) findings showed that approximately 7 per cent of Australian students in Years 4 to 9 reported being cyber bullied last term at school, every few weeks or more often (Cross et al, 2009). While cyber bullying occurs with less frequency than traditional bullying, its prevalence is still appreciable and possibly increasing in Australia, as it is elsewhere in the world (Smith et al, 2008). It is also important to note that cyber bullying is more likely to be experienced by students outside of school, rather than in school (Smith et al, 2008), yet the consequences of the bullying often wash back into school and make an impact on student learning (Bhat, 2008; Smith et al, 2008; Spears et al, 2009).

Similar to ‘face-to-face’ (non-cyber) bullying, ‘bullying through technology’ is also associated with a range of detrimental harms, with students who are cyber bullied reporting considerable distress, worry and upset over the incident (Li, 2010; Ybarra et al, 2006; Spears et al, 2009), and demonstrating a greater incidence of psychosomatic symptoms (Sourander et al, 2010), and suicidal thoughts and behaviour (Hinduja and Patchin, 2010). Being cyber bullied has also been associated with academic harms, including poor concentration, low marks and absenteeism (Beran and Li, 2007).

Implications for strategies to address cyber bullying

There is a notable paucity of research on how to prevent and intervene in cyber bullying, due to the relatively recent nature of this phenomenon. To progress our understanding of how to address this pervasive problem among school students, it is necessary to determine what is already known about general (non-cyber) bullying interventions and how this can be applied to the technological context. This can then be used as a basis for suggesting policy and practice to reduce the prevalence of cyber bullying and other bullying behaviours.

The view that traditional bullying intervention strategies may be useful in the cyber context is also supported by numerous research studies that show a coexistence of these two behaviours (eg, Beran and Li, 2007; Hinduja and Patchin, 2008; Raskauskas and Stoltz, 2007; Smith et al, 2008; Vandebosch and Van Cleemput, 2009). For instance, the Australian Covert Bullying Prevalence Study (ACBPS) found that most students (87 per cent) who reported being bullied by technology were also bullied in other (non-cyber) ways. Likewise, most (77 per cent) of the students who cyber bullied others also reported bullying students by face-to-face (non-cyber) means (Cross et al, 2009).

Intervention strategies to address bullying can be classified within six domains that are considered fundamental elements to promote health in schools (International Union for Health Promotion and Education, 2009). These are:

- key understandings and competencies for staff, students and families;
- proactive policies, plans and practices;
- supportive social environment;
- protective physical environment;
- collaborative school–family–community partnerships, and;
- building capacity for action (Cross et al, 2004; Pearce et al, 2010)
Key understandings and competencies for staff, student and family

Developing common understandings and competencies related to bullying, and especially cyber bullying, is important to ensure that families, students and school staff are recognising and responding in consistent ways to incidences of this insidious behaviour. To build understandings related to cyber bullying however, also requires some specific technical and cyber-safety content, such as learning about

- the safe use of ICT, including internet privacy and protection;
- the negative influences of online behaviour;
- online moral and legal issues;
- how to report unsafe cyber behaviours;
- online preventative action; and
- positive cyber-bystander education.

Teacher training and providing information for parents have been found to be effective components of bullying prevention programs generally (Farrington and Ttofi, 2009). However, this training is likely to be particularly important for addressing cyber bullying, because of generational differences in ICT knowledge between students and their teachers and parents (Spears et al, 2010; Palfrey and Gasser, 2008; Tapscott, 1998). Further, some research indicates that teachers do not have an adequate understanding of the potential for harm to be inflicted on students through means of electronic communication (Beran and Li, 2005), and many preservice teachers report not feeling confident to identify or manage cyber bullying in schools (Cross et al, 2009; Li, in press). Spears et al (2010), however, found that whilst 66 per cent of 709 preservice teachers in the survey sample felt capable of dealing with it, nearly all (85 to 98 per cent) could identify cyber bullying incidents and 59 to 97 per cent clearly recognised the seriousness of the behaviours. Lack of knowledge and skills among most adults is often cited as a potential barrier to adults attempting to provide help (Bhat, 2008).

Developing school staff members’ and parents’ ability to respond to cyber bullying is especially important, given that students are more likely than teachers to view technology positively (Li, 2007b). This lack of understanding also leads to students not reporting cyber bullying incidents to adults (Juvonen and Gross, 2008; Li, 2007a; Smith et al, 2008) because they think adults would not understand the issues involved (Campbell, 2005), or would not be able to help, or they fear having the technology taken away from them (National Children’s Home, 2002; Patchin and Hinduja, 2006).

Although students are considered ‘natives’ in the digital world, there is still benefit in providing students with the technical knowledge necessary to prevent and reduce cyber bullying effectively. For instance, whilst students do report using strategies to deal with cyber bullying – including blocking the sender or ignoring the bullying – they also appear to have less knowledge, for example, about how to remove harmful websites, and how to respond positively as a bystander to cyber bullying (Agatston and Limber, 2007). There is a clear need to educate students about appropriate responses, to prevent and manage cyber bullying (both relationally and technically) that they experience and to increase their reporting of incidents of cyber bullying, so they can receive appropriate support.

Proactive policies, plans and practices

A recent meta-analysis found that the presence of a formal whole-school antibullying policy is an effective component of bullying prevention programs (Farrington and Ttofi, 2009). Developing proactive policies, plans and practices appears to be a promising strategy.
School-based strategies to address cyber bullying

for reducing cyber bullying. Moreover, the school policy also needs to explicitly encompass cyber bullying, and include guidelines about moral conduct in cyber space. Outlining the responsibilities of staff, students and families is especially important for all forms of bullying, but especially cyber bullying, because it is more likely to begin at home and then spill over into the school and because cyber bullying incidents appear to inflame quickly, in some cases overnight. It is also useful to consult IT professionals at the school to ensure these policies and practices are inextricably linked to the schools’ use of ICT, such as via a student laptop program.

There are calls for laws to be created against cyber bullying, although no such calls were made for laws against traditional bullying. This may be because traditional bullying, such as physical bullying, may have been covered by assault laws. In cyberspace, there is an apparent lack of authority, and it is not clear with whom the responsibility for responding to cyber bullying resides – the parents, the school, the police, the internet service providers or the website administrators. A school’s legal rights and responsibilities around cyber bullying are less clear than for traditional bullying, because cyber bullying often occurs outside school grounds. Due to the legal challenges posed by cyber bullying (Shariff and Hoff, 2007), it is particularly important to outline the school’s rights and responsibilities clearly, in an official policy document, when planning action to reduce cyber bullying, and to disseminate this information actively to the school community. There should also be an emphasis in the school policy and procedures that collaboration between students, parents/families and the school is the best strategy to deal with the majority of cyber bullying incidents, and in only extreme cases should the incident become a criminal matter.

Supportive social environment

Based on research showing associations between cyber bullying and school climate (Williams and Guerra, 2007), school connectedness (Williams and Guerra, 2007), and peer and emotional support (Sourander et al, 2010; Williams and Guerra, 2007), it is important to create and maintain a supportive social environment in schools – one that fosters student connectedness to teachers and the school, for instance through extra-curricular activities. Encouraging a supportive peer culture that promotes bystander intervention in bullying incidents is important for traditional bullying (Salmivalli, 2010), and is clearly an important strategy for cyber bullying also, because of the lack of authority and other positive intervention online. However, the dynamics of bystander intervention are likely to be different in cyber bullying. For example, in cases of cyber bullying through instant messaging (IM), or small text messaging (Short Message Service, more commonly known as SMS) there is likely to be less opportunity for other students to witness the bullying, compared to face-to-face (non-cyber) bullying. Conversely, in other cases of cyber bullying (eg, websites, social networking sites) there could be an infinite audience who could discourage the bullying and provide support to the student being bullied.

Protective physical environment

A protective physical environment has been found to be an important strategy for reducing bullying Examples might include improving playground supervision (Farrington and Trofi, 2009; Smith and Sharp, 1994) and creating attractive school grounds (Gould League, 2010; Learning Through Landscapes, 2003). This concept can be extended to cyber bullying, by considering the potential for promoting positive uses of technology, and by making new technology available for students to use for both educational and social purposes. While
smart phone technology makes supervision of student online behaviours more difficult, it is still important to provide quality supervision to reduce the likelihood of cyber bullying, just as supervision on school grounds is important for reducing playground bullying. Similarly, some schools have found web-based or other online reporting mechanisms appear to encourage more students to report bullying, but especially cyber bullying.

**Collaborative school–family–community links**

Encouraging a coordinated approach to preventing and responding to cyber bullying – one that is consistent between parents and school staff – may be especially important for cyber bullying, because cyber bullying incidents can cross into both settings (Bhat, 2008; Smith et al, 2008). Promoting parents’ responsibility to monitor their child’s behaviour may be particularly relevant in cyber space, because of the generation gap in proficiency with rapidly changing technology and the lack of authority in cyber space.

**Capacity for action**

The effectiveness of this wide range of strategies to reduce cyber bullying is limited if school staff and students do not have sufficient capacity for action, including the commitment of school leadership and mobilisation of resources (Bosworth et al, 1999; Cunningham and Henggeler, 2001; Roberts-Gray, Gingiss and Boerm, 2007). The whole-school community (students, staff, parents and families) should be involved as active participants in the planning, development and implementation of policies, procedures and program strategies. Given students’ proficiency with technology, ensuring student involvement in, and ownership of, school actions to reduce cyber bullying is likely to be especially important. Appointing and training cyber student leaders in the school for example, can help schools to be aware of new challenges in the cyber environment and increase the relevancy of the content presented to students, as well as enable young people to influence social norms and normative expectations positively, to discourage this behaviour.

**Research on cyber bullying strategies: Where we have been and where we should be going**

Fortunately, extensive research has been undertaken internationally to understand better how to prevent and manage traditional (non-cyber) bullying, which provides useful groundwork for research into cyber bullying interventions. Many of the strategies used to address (non-cyber) bullying appear to be relevant to the prevention of and intervention in cyber bullying incidents also. Thus, much of what educators, parents and students are currently doing to prevent and reduce bullying more effectively, would have some benefit in reducing cyber bullying also.

Whilst bullying and cyber bullying have many similar characteristics, there are also some special characteristics of cyber bullying
that pose new questions for educators and researchers, about how best to address this form of behaviour. Perpetrators of cyber bullying have more opportunity to remain anonymous, minimising the risk they will be caught (Bjorkqvist, 1994; Smith and Slonje, 2009). There is also greater potential for harm to be experienced by the target of the cyber bullying, partly due to the target’s possible isolation (Smith and Slonje, 2009). Hence, cyber bullying presents a higher effect-to-danger ratio than non-cyber bullying (Bjorkqvist, 1994). Given that cyber bullying messages can be stored permanently and distributed repeatedly – with rapid technological changes providing new means by which cyber bullying can be inflicted – ongoing education for students, parents/families and school staff is necessary. However, both bullying and cyber bullying are ultimately relationship issues and require relationship-focused solutions. The technology is not the cause of the cyber bullying behaviour, but simply the means through which bullying behaviour manifests.

The use of specific strategies to respond to cyber bullying is necessary in any school to address this pervasive form of bullying. As the preceding discussion of the six domains in which to address bullying shows, many strategies found to be effective in addressing general bullying, also have relevance to the cyber context. However, these strategies require some fine-tuning to be relevant to the technological context, and there is a need to include specific strategies to address the behaviour of cyber bullying, such as cyber-safety education and promoting positive uses of technology. At the end of this paper, some suggested strategies to reduce cyber bullying are grouped into three sets for educators:

- at the school and classroom level;
- at the student level; and
- at the parent/family level.

There is not yet quality empirical evidence, however, which demonstrates the effectiveness of these strategies, due to the relatively recent nature of the cyber bullying phenomenon. Whilst the six domains presented previously mark ‘where we have been’ in terms of traditional bullying research, the material in the three groupings at the end of this paper represent ‘where we need to be going’ in relation to cyber bullying intervention research. Future research efforts are being directed towards testing these cyber-specific strategies empirically, to determine their effectiveness in reducing cyber bullying. One example of this research is the Cyber Friendly Schools project, which is being evaluated by the Child Health Promotion Research Centre at Edith Cowan University. The results from this three-year research trial will be available in 2012.

The three sets of suggested strategies also provide a summary of some of the strategies being tested as part of this empirical trial and offer some guidance for educators wanting to respond to cyber bullying in their schools. It is the responsibility of the whole-school community to help prevent and reduce cyber bullying among young people, hence the grouping of suggestions in the following pages, for educators at the school/classroom level, the student level, and the parent/family level. Educators should lead a coordinated whole-school community response to cyber bullying prevention and management as part of the school’s behavioural expectations and pastoral care plan, to ensure that consistent messages are presented across the home and school settings.
STRATEGIES FOR EDUCATORS

SET 1. AT THE SCHOOL AND CLASSROOM LEVEL

- Survey the school community (formally or informally) to understand where students are spending their time online and the potential hotspots for bullying and other unsafe behaviours, as well as the types of positive and negative experiences they may be having, to increase the relevancy of the policies and practices implemented by the school.

- Develop clear policies in conjunction with and for students, staff and parents, regarding the positive and expected use of information communication technology as a member of the school community.

- Refer to cyber bullying in school policies, describing how students can report cyber bullying and providing clear, consistent behavioural expectations related to staff and student incidences of cyber bullying.

- Train student leaders to advocate for positive uses of technology and to discourage unsafe use.

- Maximise opportunities for building student connectedness between peers during periods of transition and mixing of new social groups, to help these groups to reform without bullying.

- Provide relevant education for families to raise awareness of bullying and strategies to help students prevent and address cyber bullying (including cyber-safety education), ideally delivered by student leaders.

- Train staff to recognise and respond to cyber bullying consistently and in accordance with the school’s policy, especially to provide appropriate counselling and support to bring about behaviour change for students who bully (using, for example, the Method of Shared Concern).

- Provide students with quality curriculum that develops their social skills and teaches effective ways of addressing relational difficulties, online and offline.

- Provide students with cyber-safety education that enables the positive use of technology in both formal and informal settings.

- Communicate regularly with families to ensure a consistent understanding and response to the prevention and management of cyber bullying.

- Promote a social environment that encourages students to take positive action to support another student being bullied or cyber bullied, including telling an adult.
### SET 2. AT THE STUDENT LEVEL

- Encourage students to take responsibility for managing their digital reputation – for example, regularly searching their name and their images, and using other personal online search terms such as their email address.
- Support and enable students to treat each other respectfully online and offline, and to respond positively if they witness bullying behaviour.
- Reinforce the importance of students protecting their password – for example, by changing passwords regularly and never sharing their password with anyone (other than family members if this is part of their families’ rules).
- Educate students to remain safe and well-supported online, by using technology in shared spaces in their house – i.e., by keeping technology out of their bedrooms.
- Travelling around online is like travelling around offline. Encourage students to think about where they are travelling to and whether it is a safe place to spend their online time.
- Help students to be aware that people can pretend to be anybody they want online, so it is best only to have online friends whom they also know offline.
- Encourage students who are bystanders to bullying to support anyone they see being bullied, by sending a message of support to their peer and/or standing up for the person at the time the bullying is happening.
- Enable students who experience cyber bullying or witness cyber bullying to tell an adult (at school or home). Having students report using an online format appears to be successful in schools that have implemented this approach.

### SET 3. AT THE PARENT/FAMILY LEVEL

- Advise parents/families to keep computers in a central place at home and have clear agreed rules about their children’s use of technology.
- Encourage parents to be active in their child’s life and know who their friends are, both online and offline.
- Assist parents/families to look out for signs of bullying and/or cyber bullying, such as loss of interest in school, not wanting to spend time with friends, anxiety around technology use, being depressed, difficulty sleeping and lower school performance.
- Encourage parents to become more ‘computer savvy’. For example, if they are not familiar with the internet and its many functions, they could sign up for an online computer course, or ask their children to help them.
- Educate parents/families to get to know the privacy settings or parental controls, such as filters, on their home computer.
- If parents/families are concerned that their child is being cyber bullied, recommend that they Google their child’s name, to see where their child might be mentioned or where s/he has visited. Parents can also set up an alert on Google, which will notify them of whenever anything about their child is posted online.
- If a student is being cyber bullied it is important to keep the evidence. Parents/families can contact the internet service provider of the person who is doing the cyber bullying.
- Support parents/families to talk with their child about the importance of keeping their passwords secret. It is easier for children to cyber bully if they have another child’s password.
- Help parents/families to teach their child not to leave her/his mobile phone lying around where others can use it, without permission.
- Work closely with parents/families if they suspect their child is being cyber bullied, to develop and implement a coordinated response that is consistent between school and home.
References


AUCRA (2010) Submission to the Joint Select Committee on Cyber-safety by the Australian University Cyberbullying Research Alliance.


Additional reading

Although not referred to specifically in the text of this paper, readers may find the following item of interest.

CSE/IARTV Publications

Recent titles in the CSE Occasional Papers Series

No. 119  School-based strategies to address cyber bullying
By Donna Cross, Helen Monks, Marilyn Campbell, Barbara Spears and Phillip Slee (February 2011)

No. 118  Cyberbullying – Legal implications for schools
By Marilyn Campbell, Donna Cross, Barbara Spears and Phillip Slee (November 2010)

No. 117  School size and student outcomes in ACT public schools: A catalyst for further investigation and discussion
By Jim Watterston (September 2010)

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By Jack Keating (May 2010)

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By Darryn Cusack, Josephine Foxcroft, Shane Kamsner, Elisabeth Lenders and Dorothy Tselios (February 2010)

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By Professor Dame Pat Collarbone (April 2009)

No. 109  Schools that achieve extraordinary success: How some disadvantaged Victorian schools ‘punch above their weight’
By Vic Zbar, Ross Kimber and Graham Marshall (February 2009)

No. 108  Learning from beyond the education domain: Some emerging principles
By Vic Zbar (November 2008)

No. 107  Leadership: Influencing, relationships and authentic presence
By Patrick Dusgnan (September 2008)

No. 106  Improved student learning: Some ways forward
By David Loader (July 2008)

Other publications

Leading the education debate Volume 2: Selected papers from the IARTV/CSE Occasional Papers and Seminar Series (2007)
Editors Vic Zbar and Tony Mackay

The 20 papers included constitute a major contribution to discussion on school improvement and reform, written in a clear and accessible way and organised in four distinct parts: The new challenges we face; A new understanding of change; Collaborative approaches to school and system reform; and Leadership at the school and system level.

Leading the education debate: Selected papers from a decade of the IARTV Seminar Series (2003)
Editors Vic Zbar and Tony Mackay

This collection of twenty-five papers constitutes a major contribution to discussion on school improvement and reform.