Do cyberbullies suffer too? Cyberbullies’ perceptions of the harm they cause to others and to their own mental health.

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Abstract

While it is recognised that there are serious correlates for students who are victims of cyberbullying including depression, anxiety, lower self-esteem and social difficulties, there has been little research attention paid to the mental health of students who cyberbully. It is known that students who traditionally bully report they feel indifferent to their victims, showing a lack of empathy and that they themselves are at increased risk for psychosocial adjustment. However, there is scant research on the mental health associations of students who cyberbully or their awareness of their impact on others. The current study sought to ascertain from Australian students who reported cyberbullying others in years 6 to 12 (10-19 years of age), their perceptions of their mental health and the harm they caused to and the impact their actions had, on their victims. Most students who cyberbullied did not think that their bullying was harsh or had an impact on their victims. They reported more social difficulties and higher scores on stress, depression and anxiety scales than those students who were not involved in any bullying. The implications of these findings for the mental health of the cyberbullies and for psychologists in schools who assist them, are discussed.

Keywords

Cyberbullies, mental health, SDQ, DASS-21, anxiety, depression, school psychology
**Introduction**

Bullying is a persistent and long standing problem in most countries in the world at all educational levels (Kowalski, Morgan, & Limber, 2012; Rios-Ellis, Bellamy, & Shoji, 2000; Topcu & Erdur-Baker, 2012; Smith et al., 2008; von Marees & Peterman, 2010). While conceptions of bullying may subtly differ between countries depending on language and cultural practices, a generally accepted definition of traditional bullying is that it is deliberate, unprovoked, aggressive behaviour, which is actioned repeatedly in an attempt to hurt the victim, and involves an imbalance of power (psychological or physical) between the victim and the perpetrator (Cheng, Chen, Ho, & Cheng, 2011). The recent, emergent form of cyberbullying however, has added some complexity to the debate over definition, including the issue of the anonymity of those involved and the 24/7 nature of the act. This newer form of bullying has become truly a global phenomena transcending country boundaries and researched in all countries where adolescents have access to technology (Cassidy, Jackson, & Brown, 2009; Li, 2006, Monks, Robinson, & Worlidge, 2012; Popovic-Citic, Djuric, & Cvetkovic, 2011; Yilmaz, 2011). Cyberbullying interactions are defined as usually repeated, harmful interactions which are deliberately offensive, humiliating, threatening and power-assertive, and are enacted using electronic equipment, such as cell (mobile) phones or the Internet, by one or more individuals towards another. Cyberbul-
lying can take the form of hurtful instant or email messages, images, videos, calls, excluding or preventing someone to be part of a group or an online community (Cross et al., 2011; Spears, Kofoed, Bartolo, Palermiti, & Costabile, 2011) which can be enacted in overt or covert ways (Spears, Slee, Owens, & Johnson, 2008; 2009).

Most research to date has been understandably for a new phenomenon, on the prevalence of such behaviour and often on the prevalence of victimisation (Sakellariou, Carroll, & Houghton, 2012). However, it is important to understand this behaviour from the perspective of those students who are the perpetrators in order to determine effective prevention and intervention strategies. Understanding the association between students’ perpetration of cyberbullying and their mental health and wellbeing is equally important. Thus this paper examines cyberbullies’ perceptions of the harm they cause to others and to their own mental health.

Perceptions of students who bully

While there are numerous studies on the perceptions of the impact of traditional bullying on students who have been victimised (e.g. Hughes, Middleton, & Marshall, 2009), there are less studies about the perceptions of those students who perpetrate the bullying. For traditional bullies it has been shown that they report more positive attitudes to-
wards supporting aggressive retaliation (Bradshaw, O’Brennan, & Sawyer, 2008), feel ‘good and happy or ‘mad and angry’ when they bully other children (Boulton & Underwood, 1992) or feel indifference or satisfaction when bullying others (Borg, 1998). Fewer bullies than victims report that “it is very unpleasant” when they see a child being bullied (Houndoumadi & Pateraki, 2001). Students who bully report feeling very little when observing others being bullied and feel that the victims deserved it (Rowe, Theriot, Sowers, & Dulmus, 2008). Several studies have shown a weak to moderate relationship between empathy and bullying others (Correia & Dablert, 2008; Jolliffe & Farrington, 2006).

With the rise of cyberbullying there is some speculation that students who cyberbully, may feel more powerful benefiting from the potential of greater anonymity and the wider audience who can witness their actions (Steffgen, König, Pfetsch, & Melzer, 2011). It has also been hypothesised that the lack of immediate feedback from the victim could lead to even harsher cyberbullying (Conn, 2004). As many cyberbullies also bully in other traditional ways (Cross et al., 2009), the lack of empathy evident in traditional bullying could be magnified by the use of technology to bully others. This has lead to the proposition that cyberbullies may experience even less empathy for their victims than traditional bullies or conversely cyberbullying may attract students who exhibit low trait empathy. Preliminary
studies seem to bear this out with a negative relationship being found between empathy and cyberbullies, even more than traditional bullies (Ang & Goh, 2010; Schultze-Krumbholtz & Scheithauer, 2009).

Correlates of bullying perpetration

Association of empathy with bullying perpetration. Empathy has been defined as ‘the ability to understand and share another’s emotional state or context’ (Cohen & Strayer, 1996, p. 988). As Caravita et al. (2008) have noted it is a complex construct comprising cognitive and affective aspects. The cognitive component refers to skills of recognising others’ emotions and taking others’ perspectives. The affective component involves the ability to share others’ feelings. The display of empathy becomes more complex with age. Evidence suggests that empathy is linked to both bullying behaviour and to defending behaviour (Gini, 2006). Research conducted by Gini (2011) has shown that bullies are morally competent to judge actions but “show significant deficiencies with respect to moral sentiments and caring, and higher levels of moral disengagement” (p. 607).

Psychological adjustment. Researchers have also found poorer psychosocial relationships for children who engage in bullying (Sourander et al., 2010). For example, Kaltiala-Heino, Rimpela, Rantanen, and Rimpela (2000) carried out a study involving over 26,000 Finnish
adolescents and found that involvement in the perpetration of bullying was associated with a range of mental health problems (such as anxiety, depression and psychosomatic symptoms). Psychosomatic problems have also been found to be associated with bullying perpetration in a meta-analytic study (Gini & Pozzoli, 2009) and students who traditionally bully have been found to be at increased risk for difficulties at school and behaviour maladjustment (Andreou, Vlachov, & Didaskalour, 2005; Carlson & Cornell, 2008; Hampel, Manal, & Hayer, 2009; Murray-Harvey & Slee, 2010; Nansel, Haynie, & Simonsmorton, 2003; Wei & Chen, 2011). Bullies are at increased risk for substance abuse (Sourander et al., 2007) with Niemela and colleagues (2011) demonstrating that bullying others at age eight predicted illicit drug use at age 18 among males.

**Cyberbullies’ mental health**

With the advent of cyberbullying it has been hypothesised that students who were victims of cyberbullying could have more detrimental outcomes than traditional victims possibly due to the unique aspects associated with cyberbullying: the 24/7 nature; the anonymity aspects and the broader audience available; not to mention the power that the written and visual electronic media can have (Campbell, Cross, Spears, & Slee, 2010; Cross et al., 2009; Spears et al., 2008; 2009). The emerging evidence shows that cyber victims do indeed exhibit more symptoms of depression than traditional victims (Perren, Dooley,
Shaw, & Cross, 2010; Raskauskas, 2010). The corollary of this has led to some speculation that there could also be more detrimental outcomes for those students who cyberbully, than those who traditionally bully. However, there is scant research on this question with only a few studies examining the mental health of cyberbullies. In an early study Ybarra and Mitchell (2004) reported that 39% of students who harassed others online dropped out of school, 37% showed delinquent behaviour, 32% frequent substance abuse and 16% were severely depressed. Gradinger, Strohmeier and Spiel (2009) investigated adjustment for reactive aggression and instrumental aggression in a sample of 761 Grade 9 students in Austria. Those students who self-reported bullying others in both traditional and cyber ways scored highest on these externalising problems of both reactive and instrumental aggression compared to non-involved students, cyberbullies only and traditional bullies only. Although depressive and somatic symptoms were measured, they were only reported for students who had been victimised, not those who bullied others. Another study measured levels of depression of students who cyberbullied in Years 6-10 in the United States of America. It was found although depression scores were higher than for non-involved students, the cyberbullies’ levels of depression were lower than those engaged in traditional bullying (Wang, Nansel, & Iannotti, 2011).

The current study sought to add to the extant literature by ascertaining from Austra-
lian students who reported cyberbullying others in Year 6 to 12, their perceptions of the impact and harm they thought their actions had on the students they had cyberbullied. In addition, the associated mental health of these students was examined.

**Method**

*Participants*

The present study uses data from a large-scale school-based survey of students’ bullying experiences. Three thousand, one hundred and twelve students from Grade 6 to 12 (1572 girls 50.5 % and 1535 boys 49.4% ) from 29 different schools, both government and non-government in three Australian states participated. The age range was from 9 to 19-years-old (M = 13.96, SD =1.87). Most students (87.5%, n=2724) were able to access the Internet from their home and 83.1% (n=2586) owned their own mobile (cell) phone. This paper focused only on those students who reported cyberbullying others or who were not involved in any form of bullying, in any role.

*Procedure*

Ethical clearance was obtained both from the universities involved and the various educational systems as well as the participating schools. Participation was voluntary and
only students who wished to participate and had written parental consent took part. Approximately 30% of eligible students undertook the survey due to the active parental consent required. No data was available from students who did not return the parental consent form and therefore the demographics of non-responders were not available. The surveys were administered to students in their classrooms during class time by a research assistant and standardized instructions were read out loud to participants prior to survey administration. There were between 15 and 25 students per testing session and each session took between 30 – 45 minutes. The anonymity of the survey responses was emphasized verbally and in writing to the students. The survey was conducted between August and September (Term 3) when students had spent the previous 6-7 months of the school year together.

**Measures**

An anonymous, self-report paper-based survey was conducted, consisting of four sections. The first section asked for demographic information of gender, age and year of school, internet access at home and ownership of a mobile (cell) phone. The second section obtained information about cyberbullying experiences. The following definition of cyberbullying was provided (following recommendations of Solberg & Olweus (2003) to improve the validity of responses).

*Cyberbullying is when one person or a group of people repeatedly try to*
hurt or embarrass another person, using their computer or mobile phone, to use power over them. With cyberbullying, the person bullying usually has some advantage over the person targeted, and it is done on purpose to hurt them, not like an accident or when friends tease each other.

A filter question of “Have you cyberbullied someone this year?” (since January this year –beginning of the school year in Australia) was used to establish cyberbullying perpetration. If the students answered no they were directed to skip this section. The next question determined the frequency of the bullying perpetration on a five point scale of “every day, most days, one or two times a week, once a week and less than once a week”. These frequencies mirrored those used by Slee (1993). The following question asked how harsh or cruel they considered their cyberbullying to be: with a response on a 5 point Likert scale from ‘not at all harsh’ to ‘really harsh’. The ensuing question asked what impact they would say their cyberbullying had on the other person’s life: with a 5 point Likert scale from ‘no impact (their life was not affected)’ to ‘a huge impact (it totally changed their life)’.

The third section asked about traditional or face-to-face bullying experiences mirroring the cyberbullying questions. The fourth section of the survey used the Strength and Difficulties Questionnaire (Goodman, 1997) to ascertain conduct problems, hyperactivity, peer
relationship problems and pro-social behaviour and the DASS-21 (Lovibond & Lovibond, 1995) to ascertain depression, anxiety and stress symptoms.

*The Strengths and Difficulties Questionnaire (SDQ)* is a self-report (11-17 years version) behavioural screening device that measures both positive and negative attributes (Goodman, 1997). It consists of 25 items and includes five subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour. Each of the subscales contains 5 items. All subscales except for the pro-social behaviour are summed to obtain a total ‘difficulties’ score. For each item, participants indicate, on a three point scale, how things had been for them over the last/previous six months. The reliabilities for the SDQ for the current study using Cronbach’s alpha were: 0.75 for the emotional symptoms scale; 0.61 for the conduct problems scale; 0.66 for the hyperactivity/inattention scale 0.57 for the peer relationship problems scale; 0.75 for the pro-social behaviour scale and 0.82 for the total scale.

*The Depression, Anxiety, Stress Scale (DASS-21)* is the short form of Lovibond and Lovibond’s (1995) 42-item self-report measure of depression, anxiety and stress. It consists of 21 items and includes the three 7-item subscales of depression, anxiety and stress. Participants rate the extent to which they experienced each state over the past week on a 4-point
Likert rating scale. Scores can be calculated for all subscales by adding each of the items together and a total score obtained by summing all 21 items. The scores for all items are doubled to ensure consistency with the original 42 item version of the scale. The alpha coefficients obtained for the current study were 0.90 for the Depression scale; 0.85 for the Anxiety scale; 0.87 for the Stress scale, and 0.95 for the Total scale.

The survey ended with a list of counselling services available in the area for any students who became distressed or wanted more information on bullying.

Data Analysis

Means on the SDQ and DASS-21 and subscales were calculated separately for each of the categories of bully or not involved. Relationships between demographic variables and bully and non involved students were examined using chi-square and correlation as appropriate given the level of measurement. T-tests were used to explore the differences in means among the two groups on each of the variables. As the SDQ and DASS-21 are correlated, in this sample \( r = .64, p < .01 \) a MANOVA was employed to estimate the differences in SDQ and DASS-21 among the two groups controlling the correlation between the dependent variables.
Results

In the sample of 3,112 students, 278 (8.9%) students reported cyberbullying others by a filter question of yes or no during that school year (January through August/September). This includes students who reported cyberbullying others as their only role, cyberbullying and being a victim of cyberbullying, bullying others traditionally and by cyber means and bullying others by traditional and cyber means as well as being a victim themselves of both types of bullying. Slightly more males than females reported cyberbullying others (153 males (55%) and 125 (45%) females). There was no significant difference between the ages of those who cyberbullied and those who were not engaged in any way in bullying ($\chi^2 (1, N=2047) =0.74, p =.39$. The Year 9 students (13-14 years old) comprised the largest percentage (28.5%) who reported cyberbullying others but there was no relationship between age of those who cyberbullied and those not involved ($r(2045)=.008, p= 0.39$ (see Table 1).

Perceptions of the effects of cyberbullying

Compared to 66.4% of cyber victims (Campbell et al., 2012) who thought that the bullying they had received was harsh to very harsh, only 43.6% of cyberbullies thought that
their bullying behaviour was harsh to very harsh. In addition, while 34.6% of cyber victims (Campbell et al., 2012) believed that the bullying had a great impact on their lives, only 26% of the cyberbullies thought their actions had such an impact on their victim’s life. For those students who cyberbullied others there was no correlation between age and their rating of how harsh or cruel they considered the cyberbullying to be ($r = .122$, $n = 226, p = .07$). There were also no gender differences found. For those who cyberbullied others, there were no gender or age differences in their ratings of the impact that cyberbullying had on the person’s life whom they had cyberbullied. Bullies perceived harshness of their actions was correlated with those students reporting more difficulties on the SDQ ($r = .154, p < .05$) and more problems on the DASS-21 ($r = .129, p < .01$). Those who felt their cyberbullying had more impact on their victims were correlated with more difficulties on the SDQ ($r = .211, p < .01$) and higher scores on the DASS-21 ($r = .196, p < .01$).

Mental health

There were significant differences in all of the SDQ subscales between those students who cyberbullied and those not involved in bullying. Those who cyberbullied others, scored higher on the conduct problems scale ($M = 3.48$) than those who had not reported cyberbullying others ($M = 1.84$) ($t = -10.972, p = <.001$). They also scored higher on the hyperactivity scale subscale ($M = 4.94$) ($M = 3.70$) ($t = -7.645, p < .001$); the peer relation-
ship problems subscale ($M = 2.58$) ($M = 1.72$) ($t = -6.080, p < .001$); and the emotional problem subscale ($M = 3.37$) ($M = 2.48$), ($t = -4.7758, p < .001$). However, those who reported that they did not engage in cyberbullying scored higher on the pro-social behaviour ($M = 7.11$) subscale than those who reported that they had cyberbullied others ($M = 6.08$) ($t = 5.533, p < .001$).

There were significant differences in the total DASS-21 score for those who reported that they had cyberbullied others compared with involved students $F (1, 1867) = 39.95, p < .001$). Those who cyberbullied others, scored higher on the DASS-21 stress subscale ($M = 11.76$) than those who had not reported cyberbullying others ($M = 6.90$), ($t = -6.521, p = .000$). They also scored higher ($M = 7.33$) ($M = 4.75$) on the DASS-21 anxiety scale ($t = -4.027, p = .000$) and higher on the DASS-21 depression scale ($M = 9.82$) ($M = 5.91$) ($t = -5.054, p = .000$).

For the purposes of this study a comparison by MANOVA was made of those students who reported cyberbullying others and those who were not involved in any forms of bullying in any roles. The MANOVA of bullies and not involved students showed significant differences in social difficulties and mental health ($F (2, 1866) = 57.65, p < .001$, Hotelling’s
Trace $T=.062$, partial $\chi^2=.058)$. An examination of the bivariate results showed there was a significant difference on the SDQ total difficulties scores ($F (1, 1867) = 115.007, p < .001$).

Discussion

In the current study 8.9% of students reported cyberbullying others. This finding is consistent with the lower prevalence of cyberbullying compared to traditional bullying (Cross et al., 2009; Sourander et al., 2010). While the prevalence of cyberbullying varies considerably in studies largely due to a lack of a standardised definition, measurement issues and the different ages of the samples (Cross et al., 2011), the finding in this study, of students who reported cyberbullying others, was similar to the 7% found in another Australian sample of Year 8 students in 2004 (Campbell, 2005) and to the 6.4% found in Turkish middle schools (Yilmaz, 2011).

The findings in the present study indicated that slightly more males than females reported engaging in cyberbullying. This is similar to other studies where males reported cyberbullying others more frequently than females (Li, 2006; Popovic-Citic, 2011; Ybarra & Mitchell, 2004) but contrary to other studies which have found no gender differences for cyberbullies (Hinduja & Patchin, 2008; Williams & Guerra, 2007). In relation to age differences in the present study the year nine students (approx. age equivalent to 14 years) reported the highest incidence of cyberbullying others. This is consistent with Cross and col-
leagues study (2009) in Australia, and with reports from America and Canada that older students tend to cyberbully more than traditionally bully in Canadian schools (Beran, Rinaldi, Bickham & Rich, 2012; Mishna, Khoury-Kassabri, Gadalla, & Daciuk, 2012).

In the present study the cyberbullies’ scores on the ‘harshness’ and ‘impact’ of their behaviour were lower than the cyber victims’ scores, reported in research by Campbell et al. (2012), suggesting that cyberbullies are either not aware of the effect of their bullying or are deliberately ignoring its effects (Gini et al., 2011). Of concern is that 57% did not think their bullying behaviour was harsh, and that 74% did not think that it had an impact on their target’s life. The lack of empathic awareness for the harshness and impact of their behaviour on others is supportive of findings from previous studies, which found a negative relationship between empathy and cyberbullies (Ang & Goh, 2010; Schultze-Krumbholtz & Scheithauer, 2009). König, Gollwitzer and Steffgen (2010) found that, compared to non-cyberbullies, cyberbullies show less empathy for others being victimized. The findings from this study are in accordance with studies showing a negative relationship between empathy and aggression (e.g. Batanova & Loukas, 2011).

Although there has been little empirical research on the way in which adolescents rationalise or justify their actions for cyberbullying (Hymel, Schonert-Reichl, Bonanno, Vaillancourt, & Rocke Henderson, 2010), it has been shown that students who cyberbully
reported their main motive was to make themselves feel good (Wilton & Campbell, 2010). One avenue for explaining the findings from the present study utilises the notion of moral disengagement. Bullying could be considered an immoral or amoral act: where one involves not conforming to patterns of accepted conduct (immoral), and the other an absence, indifference or disregard for moral beliefs (amoral). Moral disengagement has been explained as a social cognitive process by which one is able to justify committing immoral acts (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). In disengaging from moral standards students can protect themselves from the negative affective reactions associated with engaging in bullying. This can be achieved in a number of ways: e.g. restructuring the harmful behaviour as socially acceptable e.g. the victim ‘deserved it’; diffusing responsibility for the action; minimizing the harmful consequences of the bullying. Gini (2011) found that bullies are morally competent to judge actions but “show significant deficiencies with respect to moral sentiments and caring” (p. 607). Of course, other possibilities exist for explaining the present findings including the relative anonymity provided by the internet. Suler (2005) also reported that when online, people can behave in ways they might not normally behave, contributing to the lack of connection and consequences they may have with those they interact with online.

The findings from the current research add to the literature in terms of correlates of
students’ perceptions of their mental health and wellbeing and the effects and impact of
their cyberbullying behaviour. As noted in this paper there is a growing body of research
addressing the issue of bullying and moral development and the ability to empathise and
understand the feelings of others. Cyberbullying adds another level of complexity to the
research in as much as relationships conducted in cyberspace provide a greater level of
anonymity, and perceived lack of consequences to the bullying behaviour. It has been noted
that in cyberspace there are also reduced social and contextual cues that may have a disin-
hibiting effect on the perpetrator’s behaviour (Ang & Goh, 2010; Suler, 2005). However,
further research is needed to disentangle factors contributing to on-line bullying behaviour
in relation to the matter of moral behaviour to better inform school-based intervention pro-
grams.

**Limitations**

In considering the findings from the present study a number of limitations to the
study need to be kept in mind. This study was cross sectional in nature and conclusions are
limited to temporal associations rather than causal inferences. The use of self report to as-
sess prevalence is potentially problematic in terms of social desirability and the possibility
of increasing shared method variance thereby potentially strengthening the association be-
tween findings. However, it is worth noting that Juvonen, Nishina, and Graham (2001)
have argued that studies which focus on adolescents’ own subjective experience can be reliably measured through self report. Furthermore, an additional possibility was that as the questionnaire sections were not counterbalanced, the students who reported cyberbullying others might have highlighted their personal difficulties as justification for their behaviour. Finally, no sound claims can be made for the representativeness of the sample given that the sample was drawn from schools in three states in Australia. Overall, the findings regarding the perceptions of cyberbullies of the effect of their behaviour and the associations with their mental health and well being should be viewed with caution but do warrant replication.

**Implications**

Although most students who cyberbully do so outside of school grounds and outside of school hours (Cross et al., 2009; Smith et al., 2008), nevertheless the ramifications of their behaviour usually appear at school. This has implications for psychologists working in schools to assist in providing a safe environment for students to learn. All bullying, including cyberbullying, is embedded in a socio-ecological perspective and is not just a dyadic relationship between a student who bullies and the student they target (Pepler, Jiang, & Connolly, 2008). System level approaches, such as policies, codes of conduct and school climate are therefore all important for prevention and intervention (Yoon, Bauman, Choi, &
Hutchinson, 2011; Richard, Schneider, & Mallet, 2011). School psychologists have an important role to play in assisting the school leadership team to improve the school climate and to make teachers aware of and concerned about cyberbullying (Cassidy, Brown, & Jackson, 2012). Interventions can also be made at the class level by school psychologists with direct lessons or using the quality circle approach (Paul, Smith, & Blumberg, 2012). Finally, school psychologists can assist at the individual level with students who are victimised but also with students who cyberbully.

Although the incidence of cyberbullying seems not to be as great as traditional bullying (Campbell et al., 2012; Cross et al., 2009) there has been some emerging evidence that cyberbullying has more associations with mental health difficulties for students who are cyberbullied (Campbell et al., 2012) and this study has shown that cyberbullies themselves also have social difficulties as well as more mental health concerns than students not involved in bullying. Clearly, cyberbullies do suffer: in terms of their own mental health and in their social experiences with others. They showed higher scores in all SDQ subscales than those not involved in cyberbullying, and higher levels of stress, depression and anxiety than those non-involved students. Their low level of awareness of the harshness and impact their behaviour has on others’ lives infers a lack of empathic awareness and perhaps also indicates limited moral engagement. The students who cyberbully as well as the students
they bully, need the services of psychologists working in schools. The finding that students who cyberbully seem to lack empathy, is similar to students who bully traditionally. Although there are many calls for programs for teaching these students empathy – that is understanding and sharing the emotions of others - this is a difficult task. These students often do not see they have harmed another student and do not want to change as they often have an inflated sense of their own importance and are getting things they want (O’Moore & Kirkham, 2001). One avenue that holds some promise is motivational interviewing as a strategy to bring these students to a point of wanting to change their behaviour and then helping them to do so (Resnicow, McMaster, & Rollnick, 2012).

**Acknowledgement**: This study was funded by the Australian Research Council Grant [LP0882087](https://www.arc.gov.au/). The authors wish to acknowledge the contribution of Robyn Garland as project manager.
References


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Doi:10.1375/ajgc.20.2.210


Sakellariou, T., Carroll, A., & Houghton, S. (2012). Rates of cyber victimization and


Table 1.
Number and gender of cyber and traditional bullies and victims

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Gender</th>
<th>Total number</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Male</td>
<td>Female</td>
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<tr>
<td>Cyberbullying</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bullies</td>
<td>14.90 (1.8)</td>
<td>25 (1.6%)</td>
<td>17 (1.1%)</td>
</tr>
<tr>
<td>*Victims</td>
<td>13.96 (1.8)</td>
<td>53 (3.5%)</td>
<td>85 (5.4%)</td>
</tr>
<tr>
<td>*Bully-victims</td>
<td>14.26 (1.8)</td>
<td>32 (2.1%)</td>
<td>16 (1%)</td>
</tr>
<tr>
<td>Traditional bullying</td>
<td></td>
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<tr>
<td>Bullies</td>
<td>13.81 (1.7)</td>
<td>61 (4%)</td>
<td>34 (2.2%)</td>
</tr>
<tr>
<td>*Victims</td>
<td>13.38 (1.8)</td>
<td>230 (15%)</td>
<td>269 (17.1%)</td>
</tr>
<tr>
<td>*Bully-victims</td>
<td>13.38 (1.6)</td>
<td>74 (4.8%)</td>
<td>73 (4.6%)</td>
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<td>Cyber and traditional bullying</td>
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<tr>
<td>Bullies</td>
<td>14.84 (1.3)</td>
<td>12 (0.08%)</td>
<td>7 (0.04%)</td>
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<tr>
<td>*Victims</td>
<td>13.27 (1.9)</td>
<td>39 (2.5%)</td>
<td>101 (6.4%)</td>
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<tr>
<td>*Bully-victims</td>
<td>13.96 (1.6)</td>
<td>70 (4.6%)</td>
<td>99 (6.3%)</td>
</tr>
</tbody>
</table>
**Uninvolved students**  
14.19 (1.9) 939 (61.2%) 871 (55.4%) 1813 (58.3%).

* The results for these students are discussed in another paper  
** These were students who were not involved in any form of bullying in any role
Table 2.
Mean scores for bullies, victims, and bully-victims

<table>
<thead>
<tr>
<th></th>
<th>Strengths and Difficulties Questionnaire (SDQ)</th>
<th>DASS 21</th>
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<tbody>
<tr>
<td></td>
<td>Emotional symptoms score</td>
<td>Conduct problem score</td>
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<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Cyberbullying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Bullies</td>
<td>3.7 (2.80)</td>
<td>3.1 (1.81)</td>
</tr>
<tr>
<td>Victims</td>
<td>3.5 (2.74)</td>
<td>2.3 (2.20)</td>
</tr>
<tr>
<td></td>
<td>*Bullies</td>
<td>Victims</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------</td>
<td>---------</td>
</tr>
<tr>
<td>Bully-victims</td>
<td>2.5 (2.36)</td>
<td>3.0 (2.22)</td>
</tr>
<tr>
<td>Traditional bullying</td>
<td>2.3 (2.48)</td>
<td>2.9 (2.5)</td>
</tr>
<tr>
<td>*Bullies</td>
<td>3.1 (2.55)</td>
<td>2.0 (1.61)</td>
</tr>
<tr>
<td>Victims</td>
<td>3.1 (2.56)</td>
<td>2.8 (2.02)</td>
</tr>
<tr>
<td>Cyber and traditional bullying</td>
<td>2.3 (2.38)</td>
<td>4.4 (2.09)</td>
</tr>
<tr>
<td>*Bullies</td>
<td>4.7 (2.82)</td>
<td>2.7 (1.89)</td>
</tr>
<tr>
<td></td>
<td>4.0 (2.67)</td>
<td>3.6 (2.20)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Bully-victims</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uninvolved students</td>
<td>2.5 (2.24)</td>
<td>1.8 (1.68)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Only the results of these students are discussed in this paper.*
Author Biographies

Marilyn Campbell is a professor at the Queensland University of Technology. She is a registered teacher and a registered psychologist. Previous to this Marilyn supervised school counsellors and has worked in infants, primary and secondary schools as a teacher, teacher-librarian and school counsellor. Her main clinical and research interests are the prevention and intervention of anxiety disorders in young people and the effects of bullying, especially cyberbullying in schools. Address: Faculty of Education, Queensland University of Technology, Brisbane Q 4059, Australia. Email: ma.campbell@qut.edu.au

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Des Butler is a Professor of Law at the Faculty of Law, Queensland University of Technology where he served as Assistant Dean, Research (1997-2002). He was awarded his doctorate in 1996 for a study of legal liability for psychiatric injury caused by negligence and is the author or co-author of 16 books on topics including psychiatric injury caused by negligence, contract law and media law. He has been a chief investigator on Australian Research Council grants studying teachers’ duties to report suspected child abuse and cyberbullying in schools. Address: Faculty of Law, Queensland University of Technology 2 George Street Brisbane 4000 Q  Email: d.butler@qut.edu.au

Sally Kift is Deputy Vice-Chancellor (Academic) at James Cook University (JCU) and President of the Australian Learning and Teaching Fellows (ALTF). Prior to commencing at JCU in May 2012, Sally was a Professor of Law at Queensland University of Technology, where she has served as Law Faculty Assistant Dean, Teaching & Learning (2001-2006) and QUT’s foundational Director, First Year Experience (2006-2007). Sally is a national Teaching Award recipient, an Australian Learning and Teaching Council (ALTC) Senior Fellow and an ALTC Discipline Scholar: Law. She has published widely in legal education and criminal law and is a chief investigator on Australian Research Council grants investigating cyberbullying in schools. Address: James Cook University TOWNSVILLE Q 4811  Email: sally.kift@jcu.edu.au