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Brief report: Text bullying and traditional bullying among New Zealand secondary school students

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A B S T R A C T

This descriptive study examined text and traditional bullying in New Zealand (NZ), and the relationship between text bullying and traditional bullying, and feeling unsafe at school. A self-report online survey assessed the frequency of bullying among 1169 15 year old secondary students, for five categories of bullying: text messages, rumours, exclusion, teasing, and physical bullying. Results show that in the school year assessed 47% reported having been bullied sometimes or often and 37% reported bullying others; 11% reported being text bullied, while 7% reported text bullying others. Students involved in text bullying were significantly more likely to be involved in traditional forms of bullying and were less likely to feel safe at school.

Introduction

School bullying is a problem experienced in many countries (Currie et al., 2004). Changing technology has opened up new avenues for bullying using electronic contact from texting on cell phones to videos on websites (Patchin & Hinduja, 2006; Smith et al., 2008). Prevalence rates for text bullying range from 15 to 32 percent (Beran & Li, 2005; Jerome & Segal, 2003; Kowalski & Limber, 2007; Raskauskas & Stoltz, 2007; Smith et al., 2008; Ybarra & Mitchell, 2004). Studies have also found that new technologies provide an additional way of "getting at" other students, rather than simply replacing traditional forms of bullying (Raskauskas & Stoltz, 2007; Smith et al., 2008).

Previous research has suggested that electronic bullying may have more severe outcomes than traditional bullying. However, more recent research by Smith and colleagues (2008) found that students generally felt cyberbullying had a similar impact to traditional bullying. While cyberbullying mostly occurs outside school, text bullying happens more often at school, despite school policies which ban cell phones (Agatston, Kowalski, & Limber, 2007). In NZ, text bullying has been reported as a significant problem among adolescents (Netsafe–The Internet Safety Group, 2005; New Zealand Police, 2006), but there is a lack of more detailed NZ research on this topic (Raskauskas, 2007). Furthermore, it cannot be assumed that the extent and nature of this bullying will be the same in NZ as elsewhere. The main aim of the present study was to explore the experience and perpetration of these behaviours among secondary students in NZ, and to examine the association between text bullying and other forms of bullying. A further aim was to examine the relationship between text bullying and feeling safe at school.

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Method

Participants and procedure

An online survey was carried out among 1169 Year 11 students in 20 of the 27 secondary schools in the Otago region of NZ; this represented 85% of the 1370 in the sampling frame. To obtain a clear picture of the situation in rural schools, there was some over-sampling of rural students, with a final sample of 378 rural students (from schools with a town population less than 10 000) and 791 urban students. A cluster sample design of classes within schools was used to recruit individual students. Fifty five percent of the participants were female, with an average age of 15.7 ± 0.4 years. The majority (87%) identified as being NZ European and 10% identified as Māori (Tangata Whenua or the indigenous people of NZ). Ethical approval was received from the Otago University Human Ethics Committee. Surveys were administered by LM during class time over the last three terms of the academic year in 2005, and took on average 30 minutes to complete.

Measures

Participants reported the frequency with which they themselves had both experienced and carried out each of the following five bullying behaviours "this year at school": excluding, physically hurting, teasing/name calling, rumours and texting (Nairn & Smith, 2002). Item responses were on a 4-point scale with 1 = *often* and 4 = *never*. Students were also asked *"How often do you feel safe at school?"* with responses dichotomised into "very often or often" and "sometimes, rarely or never", and "*During the past 30 days, on how many days did you NOT go to school because you felt you would be unsafe at school or on your way to or from school?"* (YRBS – Centre for Disease Control & Prevention, 2003).

Data analysis

The distributions for each of the 5 bullying behaviours are described for boys and girls separately. We used survey commands in STATA to obtain correct standard errors to examine gender differences in bullying (Stata Corporation, 2003). STATA reports the association as an F-test rather than χ^2. However to avoid confusion we report the significance of these differences in terms of *p*-values.

Logistic regression models were used to examine the relationship between text bullying and traditional bullying. This seemed appropriate as we were interested in the association between these two forms of bullying. Lastly, we used logistic regression to examine the relationship between text bullying (independent variable), and safety at school (dependent variable), again presupposing that feeling less safe would be an outcome of being text bullied, rather than the reverse. For these analyses the bullying variables were dichotomised as "sometimes or often" versus "never or rarely".

Results

Prevalence of bullying behaviours

Overall 47% of the sample, 45% of the girls and 50% of the boys, had been bullied "sometimes or often" during the current school year, a non-significant difference ($p = 0.11$). Table 1 shows the reported prevalences for bullying. The most common forms were teasing/name calling (29%), having rumours passed around (22%), being excluded (19%), being physically hurt (15%) and having unwanted text messages sent to them (11%). Boys were significantly more likely than girls to experience physical bullying, and teasing/name calling ($p < 0.001$). Girls were more likely to experience unwanted text messages ($p = 0.002$).

While most students reported that they had rarely or never bullied other students, 37% did report having bullied others "sometimes or often". Such bullying was carried out significantly more by boys than girls (45% versus 28% respectively, $p < 0.001$). Table 1 also shows the types of bullying perpetrated. The most common forms of bullying were teasing/name calling (24%), excluding others from groups (18%), physical bullying (15%), passing rumours (9%), and unwanted texting (7%).

Table 1
Prevalence of bullying.

Bullying behaviour[a]	Been bullied % (95% CI)		Bullied others % (95% CI)	
	Boys	Girls	Boys	Girls
Exclusion of others	18.4 (15.9–20.9)	19.7 (79.1–84.1)	22.2 (19.2–25.1)*	14.6 (10.2–19.1)
Physical bullying	23.4 (19.7–27.0)*	6.4 (4.3–8.4)	22.4 (18.2–26.7)*	6.5 (4.5–8.5)
Teasing/name calling	36.3 (31.2–41.5)*	21.4 (19.0–23.8)	31.5 (26.7–36.3)*	15.6 (12.2–19.0)
Rumours	20.6 (16.8–24.5)	24.2 (19.9–28.6)	10.0 (6.7–13.3)	7.6 (5.2–9.3)
Texting	7.9 (6.5–9.3)	13.8 (10.5–17.1)*	6.9 (4.6–9.2)	7.0 (3.9–10.1)

*Significant difference by gender, $P < 0.05$.
[a] Often or sometimes.

Table 2
Odds ratios for bullying (sometimes or often) through traditional methods and text messages.

Traditional bullying behaviour[a]	Been text bullied[a] OR (95% CI)		Text bullied others[a] OR (95% CI)	
	Boys	Girls	Boys	Girls
Exclusion of others	8.1 (4.0–16.4)*	3.5 (2.5–5.0)*	17.7 (8.4–37.3)*	12.3 (6.2–24.5)*
Physical bullying	6.6 (2.9–15.4)*	4.4 (2.0–9.8)*	18.4 (7.8–43.2)*	6.1 (3.4–10.9)*
Teasing/name calling	16.8 (5.6–50.7)*	6.9 (4.2–11.2)*	28.0 (8.7–90.1)*	12.5 (4.6–33.9)*
Rumours	8.7 (5.2–14.7)*	8.6 (5.2–14.5)*	36.9 (10.1–134.9)*	15.8 (6.1–40.9)*

*$P < 0.01$. The large confidence intervals are due to the lower frequency of rumours among boys combined with the low frequency of texting.
[a] Reference group is rarely/never.

Boys were significantly more likely than girls to bully through exclusion ($p = 0.004$), physical bullying ($p < 0.001$), and teasing/name calling ($p < 0.001$).

The relationship between texting and other forms of bullying

As shown in Table 2, students who experienced text bullying were also significantly more likely to experience every other form of traditional bullying, regardless of gender. For example, boys who were sent unwanted text messages "sometimes or often," were nearly seventeen times more likely to have been teased and called names than boys who had been text bullied "rarely or never". Girls sent unwanted text messages "sometimes or often" were nearly nine times more likely to have been rumoured about than girls who had been text bullied less often. Similarly, students who bully others through text messaging were also significantly more likely to bully through other more traditional forms, regardless of gender (Table 2). These relationships between texting and other forms of bullying appeared to be stronger for boys than girls.

Text bullying and feeling safe at school

Logistic regression analyses showed that girls and boys who were text bullied were significantly more likely to feel unsafe at school compared with students who were not text bullied (girls OR = 3.1, CI: 1.9–5.2, $p < 0.001$; boys OR = 4.7, CI: 2.3–10.1, $p < 0.001$). They were also more likely to have missed school in the past month due to feeling unsafe (girls OR = 12.1, CI: 4.3–33.8, $p < 0.001$; boys OR= 4.1 CI: 1.1–15.2, $p < 0.05$). Boys who text bullied others were nearly twice as likely to feel unsafe at school (OR = 1.7, CI: 1.0–2.8, $p < 0.05$), and girls were six times more likely to have missed school in the past month due to feeling unsafe (OR = 6.1, CI: 2.5–14.5, $p < 0.001$).

Discussion

Nearly half of participants had been bullied in the current school year, and one in three reported bullying others. Text bullying was less frequent than traditional bullying, and while still substantial, was significantly less than prevalences reported by other researchers (Beran & Li, 2005; Jerome & Segal, 2003; Kowalski & Limber, 2007; Netsafe–The Internet Safety Group, 2005; Raskauskas & Stoltz, 2007; Smith et al., 2008; Ybarra & Mitchell, 2004). It is nevertheless important, as students who both received and sent unwanted texts felt less safe at school (especially boys) or missed school (especially girls). This finding is consistent with the reported relationship between traditional forms of bullying and feeling unsafe (DuRant, Kahn, Beckford, & Woods, 1997; Glew, Fan, Katon, & Rivara, 2008).

Students who text bullied were also more likely to be involved in traditional forms of bullying, so it appears that text bullying is an additional way of bullying fellow students. This result is consistent with other research (Raskauskas, 2007; Raskauskas & Stoltz, 2007; Smith et al., 2008). While some studies have found that text bullying was rated by students as having less of an impact than traditional bullying (Slonje & Smith, 2008; Smith et al., 2008), our findings may point to text bullying being more powerful as it can occur out of the school environment, and outside school hours.

A significant number of NZ students are bullied through text messages, and the possibility of this type of bullying increasing rapidly in the future is likely as more students gain access to the internet, mobile phone ownership increases, and sophisticated mobile phones become more affordable. Text bullying is not going to replace traditional forms of bullying, but rather act as an additional way of bullying one's fellow students.

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References

Agatston, P. W., Kowalski, R. M., & Limber, S. P. (2007). Students' perspectives on cyberbullying. *Journal of Adolescence, 41*, S59–S60.
Beran, T., & Li, Q. (2005). Cyber-harasment: a new method for an old problem. *Journal of Educational Computing Research, 32*(3). 256–277.
Currie, C., Roberts, C., Morgan, A., Smith, R., Settertobulte, W., Samdel, O., et al. (2004). *Young people's health in context. Health Behaviour in School-aged Children (HBSC) study: International report from the 2001/2002 survey*. Copenhagen: World Health Organisation.
DuRant, R. H., Kahn, J., Beckford, P. H., & Woods, E. R. (1997). The association of weapon carrying and fighting on school property and other health risk and problem behaviors among high school students. *Archives of Pediatrics & Adolescent Medicine, 151*(4), 360–366.
Glew, G. M., Fan, M., Katon, W., & Rivara, F. (2008). Bullying and school safety. *The Journal of Pediatrics, 152*, 123–128.
Jerome, L., & Segal, A. (2003). Bullying by Internet. *Journal of the Academy of Child and Adolescent Psychiatry, 42*(7), 751–752.
Kowalski, R. M., & Limber, S. P. (2007). Electronic bullying among middle school students. *Journal of Adolescent Health, 41*, S22–S30.
Nairn, K., & Smith, B. (2002). Secondary school students' experiences of bullying at school – and their suggestions for dealing with it. *Childrenz Issues, 6*(1), 16–22.
Netsafe – The Internet Safety Group. (2005). *The text generation: Mobile phones and New Zealand youth*. Auckland: Netsafe.
New Zealand Police. (2006). Working to prevent text bullying. *Ten One Community Edition, May*.
Patchin, J. W., & Hinduja, S. (2006). Bullies move beyond the school yard. *Youth Violence and Juvenile Justice, 4*(2), 148–169.
Raskauskas, J. (2007). Text-bullying among early adolescents. *Kairaranga, 8*(1), 17–21.
Raskauskas, J., & Stoltz, A. D. (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology, 43*(3), 564–575.
Slonje, R., & Smith, P. K. (2008). Cyberbullying: another main type of bullying? *Scandinavian Journal of Psychology, 49*, 147–154.
Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: it's nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry, 49*(4), 376–385.
Stata Corporation. (2003). *Stata statistical software: Release 9.0*. College Station, TX.
Ybarra, M. L., & Mitchell, K. J. (2004). Youth engaging in online harassment: associations with caregiver-child relationships, Internet use, and personal characteristics. *Journal of Adolescence, 27*, 319–336.