CYBERPSYCHOLOGY, BEHAVIOR, AND SOCIAL NETWORKING
Volume 15, Number 12, 2012

DOI: 10.1089/cyber.2012.0132

Heterosexual and Nonheterosexual Young University Students' Involvement in Traditional and Cyber Forms of Bullying

Kate Wensley, MPsych, and Marilyn Campbell, Ph.D.

Abstract

Research has consistently found that school students who do not identify as self-declared completely heterosexual are at increased risk of victimization by bullying from peers. This study examined heterosexual and nonheterosexual university students' involvement in both traditional and cyber forms of bullying, as either bullies or victims. Five hundred twenty-eight first-year university students ($M = 19.52$ years old) were surveyed about their sexual orientation and their bullying experiences over the previous 12 months. The results showed that nonheterosexual young people reported higher levels of involvement in traditional bullying, both as victims and perpetrators, in comparison to heterosexual students. In contrast, cyberbullying trends were generally found to be similar for heterosexual and nonheterosexual young people. Gender differences were also found. The implications of these results are discussed in terms of intervention and prevention of the victimization of nonheterosexual university students.

Introduction

Past research within the last decade has begun to focus on traditional bullying, harassment, and victimization of nonheterosexual school students (individuals who identify as lesbian, gay, and bisexual, and people who are questioning or unsure of their sexual orientation[1]), with the data unequivocally showing that this group is at a higher risk of victimization, and the associated poor outcomes, than their heterosexual counterparts.[2,3] Despite this evidence, the majority of bullying research tends not to acknowledge or address sexuality as a possible factor in the victimization of young people[4] nor does it acknowledge cyberbullying as a serious risk for nonheterosexual youth.[5] Further, current bullying research is generally focused on students in schools[6–8] or adults in the workplace[9] and, thus, rarely captures the experiences of young people attending university. Additionally, it has been shown that bullying increases in the transition from elementary to high school where new social relationships are forming.[10] Young people at this age are not yet usually aware of their sexual orientation so examining bullying among young first-year university students to explore the issue of sexuality and bullying in both traditional and cyber forms is needed.

Traditional Bullying

There is general agreement among researchers that bullying is defined as aggressive behavior toward a victim who cannot easily defend him- or herself, by one or more perpetrators, which is repetitive, intentionally harmful, and occurs without provocation.[11,12] Traditional bullying includes physical (e.g., hitting or pushing), verbal (e.g., teasing and hurtful name calling), and relational forms (e.g., social exclusion and rumor spreading).[13] A recent meta-analysis found that boys were more likely than girls to be involved in traditional forms of bullying either as a bully, victim, or bully-victim.[14] Historically however, research has tended to show that boys generally engage more in physical and verbal bullying, whereas girls generally use more relational tactics.[13,15]

Numerous studies suggest that involvement in bullying is a common experience for many young people.[1,6,7] Research indicates that 30–40 percent of middle and high school students report being traditionally bullied.[6] Despite these high rates, young people who identify as nonheterosexual are at even greater risk of involvement in traditional bullying than their heterosexual peers.[1,7] These findings are extremely concerning for nonheterosexual youth, given that research has consistently shown that young people involved in traditional forms of bullying are at heightened risk of negative mental health outcomes as a victim such as increased levels of anxiety, depressive symptoms, poor self-worth, social isolation and loneliness, psychosomatic complaints, suicidal ideation, and suicide attempts.[16–21] Perpetrators of bullying have also been found to experience difficulties with school, psychosocial adjustment, externalizing behaviors, and delinquency in late adolescence and early adulthood[22,23]; substance abuse[24]; and depression.[25]

School of Learning and Professional Development, Queensland University of Technology, Brisbane, Australia.

With nonheterosexual young people suffering higher rates of bullying compared with their heterosexual peers, it is unsurprising that this population is at greater risk of experiencing negative mental health outcomes, such as depression, suicidality, and drug or alcohol use.[26] Thus, young people who do not identify as completely heterosexual are more likely to be involved in traditional bullying, compounding their risk of long-term negative mental health outcomes.

Cyberbullying

With the ever-increasing access to and use of electronic communication tools, young people are becoming involved with a new form of aggression called "cyberbullying."[27,28] The definition for cyberbullying is generally considered by researchers to be intentional and repeated harm of a victim who cannot easily defend him- or herself through the use of technology.[27,29] Cyberbullying may include sending nasty e-mails or text messages, creating insulting websites dedicated to an individual, or posting hurtful or embarrassing pictures on online. Unlike traditional forms of bullying, some literature suggests that there are no gender differences in involvement in cyberbullying.[30,31] However, other reports indicate that girls outnumber boys in their involvement with cyberbullying,[32,33] similar to traditional relational bullying.[15] Despite the clear rise in technology use, current research suggests that cyberbullying is less prevalent than traditional bullying.[13,34]

Like traditional bullying, cyberbullying has been found to be a pervasive and damaging form of victimization. Victims of cyberbullying report feeling of sadness, fear, and concentration difficulties[35]; school problems, such as truancy, detentions, and suspensions[36]; depression, substance use, and delinquency[37]; and feelings of hopelessness and powerlessness.[38] Dooley et al.[29] have argued that the impact of cyberbullying may even outweigh that of traditional bullying due to the potentially limitless audience.

Despite the amount of current research focused on bullying, there remain significant gaps in the literature. One key limitation is that most articles concentrate on the bullying experiences of school students and not older youth. This is likely motivated by the argument that, aside from a spike in prevalence rates during the transition from primary to high school,[10,39] bullying generally declines as children become older.[13,22] Although this may indeed be true, bullying does not completely abate when students graduate from high school, as is shown by the plethora of literature evidencing workplace bullying.[9,40–43] Further, there is some research suggesting that cyberbullying actually increases as children become older,[33,38] although this has not been consistently reported[13] and warrants further attention. Notwithstanding the evidence that bullying continues beyond the school years, there remains a conspicuous lack of research examining the bullying experiences of young people in tertiary education institutions. The limited literature addressing bullying in these settings acknowledges that it is a significant problem, with approximately one in four students reporting having been a victim of bullying.[44,45] To date, research looking at the bullying experiences of nonheterosexual university students is seemingly nonexistent.

There is also a scarcity of research addressing the cyberbullying experiences of nonheterosexual young people. As nonheterosexual young people appear to be at greater risk of being traditionally bullied than their heterosexual counterparts, it follows that they may also be at greater risk of cyberbullying. Therefore, this study explores the traditional and cyberbullying experiences of young heterosexual and nonheterosexual university students.

Methods

Participants

Participants were 528 undergraduate students, consisting of 426 women (80.7 percent), 99 men (18.8 percent), and 3 not specified (0.6 percent), aged between 18 and 25 years old ($M = 19.52$ years, $SD = 1.99$), from an Australian university. Participation criteria were that students had to be in their first year of study and aged between 18 and 25 years as they are the most connected age group among Internet users.[46] Participants were recruited through first-year lectures, as well as through a participant pool of first-year psychology students. The psychology students accrued research credit for their participation while all other students were offered the opportunity to be entered into a draw to win a shopping voucher for their participation. Ninety-one participants (17.2 percent) identified as being nonheterosexual, including 17 men (3.2 percent) and 73 women (13.8 percent), and 435 (82.4 percent) participants identified as being completely heterosexual, including 352 women (66.7 percent) and 81 men (15.3 percent). Two participants (0.08 percent) did not disclose their sexual orientation and were thus excluded from the study.

Measure

A bullying questionnaire was developed for the purposes of the present study and adapted from previous research by Campbell et al.[16] The modified questionnaire consisted of 35 items. The first section provided the following definition of cyberbullying: "Cyberbullying is bullying using technology. It 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." Respondents were asked 12 questions about the incidence, frequency, and severity of cyberbullying experienced in the previous 12 months. For example, after a filter question of "Have you been cyberbullied in the last 12 months" if yes go to Question 2 "How often have you been cyberbullied in the last 12 months?" *less than once a week, once a week, one or two times a week, most days, or every day*. What sort of things have you been cyberbullied about? *Appearance, grades or intelligence, sexuality, gender expression*.

The second section repeated the same 12 items as section one but focused on traditional forms of bullying. A standard definition of traditional bullying adapted from research by Olweus[12,47–49] was provided to participants at the beginning of the section: "Traditional bullying is when one person wants to hurt another person on purpose (it's not an accident) and does it repeatedly and unfairly (the bully has some advantage over the victim). Bullying may be done by one or more people a number of times."

Finally, the questionnaire included seven demographic items that asked participants about their gender, age, and

sexual orientation. The sexual orientation question was adapted from a study by Berlan et al.[1] and asked about feelings of attraction using six mutually exclusive response options. Participants were asked, "Which one of the following best describes your sexuality?" Responses included the following: "Completely heterosexual (attracted to persons of the opposite sex)," "Mostly heterosexual," "Bisexual (equally attracted to men and women)," "Mostly homosexual," "Completely homosexual (lesbian/gay, attracted to persons of the same sex)," or "questioning/not sure." The response to this question was highly skewed with 82.4 percent of participants identifying as completely heterosexual, 10.6 percent as mostly heterosexual, 3 percent as bisexual, 0.8 percent as mostly homosexual, 1.9 percent as completely homosexual, and 0.9 percent as questioning/not sure. Due to the skewed nature of the data, the six categories were collapsed into two: completely heterosexual and nonheterosexual.

Procedure

Surveys were administered to students in first-year psychology lectures. Responses were anonymous and participation was voluntary with a completion time of ~10 minutes. Four hundred eleven students completed the survey in the lectures. A second round of data collection was undertaken online via a university run system for course credit, which was completed by a further 117 first-year undergraduate students. No differences in the demographics or bullying experiences were found in either group of participants and, therefore, the data were combined. All data collection took place between June and August 2011. Procedures were approved by the institutional ethics committee.

Data analysis

Participants' responses to questions regarding bullying revealed skewed distributions and therefore nonparametric tests were used in the analyses. All analyses were undertaken using SPSS Statistics 19.0. Fifty-eight participants were excluded from the analyses as they were aged over 26 as they did not fit the criteria.

Results

Table 1 presents the prevalence rates of being a victim or perpetrator of traditional and cyber forms of bullying for heterosexual and nonheterosexual male and female participants. A series of χ^2 tests for independence with Yates continuity correction were conducted on the survey data to explore the differences in the association between bullying and sexuality. To determine which cells in the cross-tabulation had higher than expected frequencies, the standardized residual for each cell was examined. By comparing standardized residuals, particular cells that contribute most to χ^2 are observed. According to Sheskin[50] standardized residuals with absolute values >1.96 indicate that a cell accounts for a significant contribution to the association between variables.

Traditional bullying victimization and sexuality

Of the 523 participants, 20.8 percent reported being a victim of traditional bullying in the preceding 12 months. Across all participants, a χ^2 test indicated that being a victim of traditional bullying was not independent of sexuality [χ^2 (1, $N=524$) $=5.93$, $p=0.02$, $\varphi_C=-0.11$]. Analysis of the standardized residuals revealed that a significantly higher than expected number of nonheterosexual participants had been traditionally bullied (standardized residual $=2.1$). A comparison of the traditional bullying rates across genders can be seen in Table 1. For women, a χ^2 analysis revealed a significant association between traditional bullying victimization and sexuality [χ^2 (1, $N=424$) $=5.46$, $p=0.02$, $\varphi_C=-0.12$]; however, no such association was found for men [χ^2 (1, $N=97$) $=0.32$, $p=0.57$, $\varphi_C=-0.09$]. Analysis of the standardized residuals revealed that a significantly higher than expected number of nonheterosexual female participants had been traditionally bullied (standardized residual $=2.0$).

Traditional bullying perpetration and sexuality

A total of 5.1 percent of participants reported being a perpetrator of traditional bullying. Table 1 displays the rates of traditional bullying perpetration across genders. A χ^2 test of all participants indicated a significant association between traditional bullying perpetration and sexuality [χ^2 (1, $N=525$) $=3.98$, $p=0.046$, $\varphi_C=-0.10$], with the standardized residuals revealing that nonheterosexual participants engaged in more traditional bullying than expected (standardized residual $=2.0$). The association was found to be significant for women [χ^2 (1, $N=424$) $=10.57$, $p<0.001$, $\varphi_C=-0.17$], with the standardized residuals indicating that nonheterosexual women were significantly more likely to be perpetrators of traditional bullying than expected. Due to low cell sizes, a χ^2 test could not be used to explore the association between sexuality and traditional bullying perpetration for men. Thus, a Fisher's exact test was used, revealing that there was no significant association between sexuality and traditional bullying perpetration for men ($p=0.41$).

Table 1. Prevalence Rates of Being a Victim or Perpetrator of Traditional Bullying and Cyberbullying for Nonheterosexual and Heterosexual Men and Women

	Men (%)			*Women (%)*			*Total (%)*	
	Het (n = 81)	*NH (n = 17)*	*Total (n = 98)*	*Het (n = 352)*	*NH (n = 73)*	*Total (n = 425)*	*Het (n = 433)*	*NH (n = 90)*
TB victim	25	35.3	26.8	17.4	30.1	19.6	18.7	30.8
TB perpetrator	9.9	0	8.2	2.8	12.3	4.5	4.1	9.9
CB victim	11.1	35.3	15.3	10.5	11	10.6	10.8	15.4
CB perpetrator	7.4	17.6	9.2	2.3	4.2	2.6	3.2	6.7

HET, heterosexual; NH, nonheterosexual; TB, traditional bullying; CB, cyberbullying.

Cyberbullying victimization and sexuality

For cyberbullying, 11.6 percent of all participants reported being victims of cyberbullying in the preceding 12 months. A χ^2 test indicated no significant association between cyberbullying victimization and sexuality across all participants [χ^2 (1, $N=526$) = 1.13, $p=0.29$, $\varphi_C=-0.05$]. Rates for being a victim of cyberbullying across gender and sexual orientation are displayed in Table 1. Analyses revealed that there was a significant association between cyberbullying victimization and sexuality for men [χ^2 (1, $N=98$) = 4.61, $p=0.03$, $\varphi_C=-0.25$] but not for women [χ^2 (1, $N=425$) = 0, $p=1.0$, $\varphi_C=-0.01$]. The standardized residuals showed that a significantly higher than expected number of nonheterosexual male participants had been cyberbullied (standardized residual = 2.1).

Cyberbullying perpetration and sexuality

Cyberbullying was reported to be perpetrated by 3.8 percent of all participants in the preceding 12 months. A χ^2 test indicated that there was no association between sexuality and cyberbullying perpetration across all participants [χ^2 (1, $N=523$) = 1.62, $p=0.20$, $\varphi_C=-0.07$]. Differences across genders can be seen in Table 1. To explore this relationship across both sexes, a Fisher's exact test was again employed due to low cell sizes. This analysis revealed that cyberbullying perpetration was independent of sexuality for both women ($p=0.41$) and men ($p=0.19$).

Discussion

This study investigated heterosexual and nonheterosexual university students' involvement as bullies and victims in both traditional and cyber forms of bullying. It was found that approximately one in five first-year university students reported having been traditionally bullied in the past 12 months. This is similar to the level of bullying reported by school students in earlier studies.[44,45] Overall, nonheterosexual young people reported higher levels of involvement in traditional bullying, both as victims and perpetrators, than heterosexual young people. In contrast, cyberbullying trends were generally not affected by participants' sexual orientation, although nonheterosexual men were more likely to be cyberbullied than heterosexual men. These heightened rates of victimization may be explained by studies showing that bullies target those who are different and especially if they not conform to typical gender norms, that is the expression of femininity by women and the expression of masculinity by men.[51]

Traditional bullying

Nonheterosexual women were more likely to report being both victims and perpetrators of traditional bullying than heterosexual women. Nonheterosexual men reported being victims more than heterosexual men but this finding was only approaching significance. These findings are consistent with previous research in an adolescent population, which found that nonheterosexual women experienced higher levels of overall involvement in both bullying perpetration and victimization, whereas nonheterosexual men only experienced greater levels of victimization.[1] As suggested by Berlan et al.,[1] the elevated levels of traditional bullying perpetration seen in nonheterosexual women may be in response to having faced heightened victimization themselves; however, the reason for the absence of similar trends in men remains unclear.

Cyberbullying

The rates of cyberbullying victimization were found to be more elevated in nonheterosexual than in heterosexual men. Interestingly, this finding was not replicated for women, despite the general trend in the literature that nonheterosexual young people often face a heightened risk of victimization.[1,8] Erdur-Baker[52] found that women who use the Internet more are also likely to be bullied on the Internet more. Alternatively, the difference may lie in the type of cyber-based activities that are undertaken by nonheterosexual female university students. Rates of cyberbullying perpetration did not differ with sexuality for either men or women; however, it is difficult to draw conclusions based on these findings due to the small sample size.

Comparing traditional and cyber forms of bullying

Previous research has demonstrated that the rate of cyberbullying victimization is generally lower than that of traditional bullying.[13,34] This trend was replicated in the current study for all groups with the exception of nonheterosexual men, who were found to experience the same rates of both traditional bullying and cyberbullying. One explanation for this result may be that nonheterosexual men engage in more risky Internet behavior than others by spending more time on the Internet and disclosing more about themselves.[52,53]

An interesting finding was that the rate of being a victim of traditional bullying for nonheterosexual university students in this sample was considerably lower than that of nonheterosexual school students,[54,55] supporting previous research that involvement in traditional bullying declines with age.[22] In contrast, the rate of cyberbullying in the current sample of university students was similar to that shown in studies of middle and high school students.[13,33] These outcomes suggest that while traditional bullying decreases as adolescents move into university, cyberbullying may remain constant from the high school years.

Implications

The findings of the present study have important practical implications. First, it would be helpful for health professionals working in university settings to be aware of the current findings. Second, bullying interventions should extend beyond schools and target universities and colleges, with a particular focus on the welfare of nonheterosexual students with university policies ensuring a safe learning environment for all students.

Limitations

These findings must be considered in light of the limitations of this study. First, care should be taken in generalizing the findings due to the small sample size, low proportion of male students, and possible selection bias in participant recruitment. The latter may have been introduced because students were aware that the study was about bullying, and therefore those who had experienced bullying may have been more likely to participate. Due to methodological constraints, causality cannot be inferred in exploring the relationship

between bullying and sexual orientation. Additionally, the use of self-report has the potential for misrepresenting experiences and values.

Despite these limitations, the study provides clear evidence that nonheterosexual university students, especially men, are more likely to be victims of bullying in both traditional and cyber forms than their heterosexual peers, and are thus at heightened risk of poorer outcomes.

Future directions

This study found that elevated levels of traditional bullying perpetration were found in nonheterosexual women; however, the reason for the absence of similar trends in men remains unclear. Future research could endeavor to explore this finding perhaps with qualitative methods. More research could also explore how nonheterosexual and heterosexual men and women spend their time on the Internet to extrapolate the potential reasons for the present findings that nonheterosexual men were equally victimized by traditional and cyberbullying but this was not the case for women. Longitudinal studies could also explore the causal factors that impact on the bullying experiences of young nonheterosexual university students.

Author Disclosure Statement

The authors acknowledge no competing financial interests.

References

1. Berlan ED, Corliss HL, Field AE, et al. Sexual orientation and bullying among adolescents in the growing up today study. Journal of Adolescent Health 2010; 46:366–371.
2. Hohnke M, O'Brien P. Discrimination against same sex attracted youth: the role of the school counsellor. Australian Journal of Guidance and Counselling 2008; 18:67–75.
3. Rivers I, Noret N. Well-being among same-sex- and opposite-sex-attracted youth at school. School Psychology Review 2008; 37:174–187.
4. Poteat VP, Espelage DL. Exploring the relation between bullying and homophobic verbal content: the Homophobic Content Agent Target (HCAT) scale. Violence and Victims 2005; 20:513–528.
5. Blumenfeld WJ, Cooper RM. LGBT and allied youth responses to cyberbullying: Policy implications. International Journal of Critical Pedagogy 2010; 3:114–133.
6. Mynard H, Joseph S, Alexander J. Peer-victimisation and posttraumatic stress in adolescents. Personality and Individual Differences 2000; 29:815–821.
7. Williams T, Connolly J, Pepler D, et al. Questioning and sexual minority adolescents: high school experiences of bullying, sexual harassment and physical abuse. Canadian Journal of Community Mental Health 2003; 22:47–58.
8. Williams T, Connolly J, Pepler D, et al. Peer victimisation, social support, and psychosocial adjustment of sexual minority adolescents. Journal of Youth and Adolescence 2005; 34:471–482.
9. Hoel H, Cooper CL, Faragher B. The experience of bullying in Great Britain: the impact of organizational status. European Journal of Work and Organizational Psychology 2001; 10:443–465.
10. Lester L, Cross D, Shaw T, et al. Adolescent bully-victims: social health and the transtion to secondary school. Cambridge Journal of Education 2012; 42:213–233.
11. Campbell MA. Cyber bullying: An old problem in a new guise? Australian Journal of Guidance and Counselling 2005: 15:68–76.
12. Olweus D, Limber SP. Bullying in school: evaluation and dissemination of the Olweus Bullying Prevention Program. American Journal of Orthopsychiatry 2010; 80:124–134.
13. Wang J, Iannotti RJ, Nansel TR. School bullying among adolescents in the United States: physical, verbal, relational, and cyber. Journal of Adolescent Health 2009; 45:368–375.
14. Cook CR, Williams KR, Guerra NG, et al. Predictors of bullying and victimisation in childhood and adolescence: a meta-analytic investigation. School Psychology Quarterly 2010; 25:65–83.
15. Björkqvist K. Sex differences in physical, verbal, and indirect aggression: a review of recent research. Sex Roles 1994; 30: 177–188.
16. Campbell MA, Spears B, Slee P, et al. (2011) The prevalence of cyberbullying in Australia. *Paper presented at the 5th World conference and IV Iberoamerican Congress on Violence in School. Investigations, Interventions, Evaluations and Public Policies Mendoza*. Argentina.
17. Hawker DS Boulton MJ. (2003) Twenty years' research on peer victimisation and psychosocial maladjustment: a meta-analytic review of cross-sectional studies. In Hertzig ME, Farber EA, eds. *Annual Progress in Child Psychiatry and Child Development: 2000–2001.* New York, NY: Brunner-Routledge, pp. 505–534.
18. Kaltiala-Heino R, Rimpelä M, Marttunen M, et al. Bullying, depression, and suicidal ideation in Finnish adolescents: school survey. British Medical Journal (Clinical Research Ed.)1999; 319:348–351.
19. Kaltiala-Heino R, Rimpelä M, Rantanen P, et al. Bullying at school—an indicator of adolescents at risk for mental disorders. Journal of Adolescence 2000; 23:661–674.
20. Neary A, Joseph S. Peer victimisation and its relationship to self-concept and depression among schoolgirls. Personality and Individual Differences 1994; 16:183–186.
21. Rigby K, Slee P. Suicidal ideation among adolescent school children, involvement in bully-victim problems, and perceived social support. Suicide and Life-Threatening Behaviour 1999; 29:119.
22. Nansel TR, Overpeck M, Pilla RS, et al. Bullying behaviours among US youth: prevalence and association with psychosocial adjustment. Journal of the American Medical Association 2001; 285:2094–2100.
23. Perren S, Hornung R. Bullying and delinquency in adolescence: victims' and perpetrators' family and peer relations. Swiss Journal of Psychology 2005; 64:51–64.
24. Houbre B, Tarquinio C, Thuillier I, et al. Bullying among students and its consequences on health. European Journal of Psychology of Education 2006; 21:183–208.
25. Kumpulainen K, Räsänen E, Henttonen I, et al. Bullying and psychiatric symptoms among elementary school-age children. Child Abuse and Neglect 1998; 22:705–717.
26. Espelage DL, Aragon SR, Birkett M, et al. Homophobic teasing, psychological outcomes, and sexual orientation among high school students: what influence do parents and schools have? School Psychology Review 2008; 37:202–216.
27. Hinduja S, Patchin JW. Personal information of adolescents on the Internet: a quantitative content analysis of MySpace. Journal of Adolescence 2008; 31: 125–146.
28. Palfrey J, Gasser U. (2008) *Born digital: understanding the first generation of digital natives*. New York: Basic Books.

29. Dooley JJ, Pyżalski J, Cross D. Cyberbullying versus face-to-face bullying: A theoretical and conceptual review. Journal of Psychology 2009; 217:182–188.
30. Slonje R, Smith PK. Cyberbullying: another main type of bullying? Scandinavian Journal of Psychology 2008; 49:147–154.
31. Ybarra ML, Mitchell KJ. Youth engaging in online harassment: associations with caregiver-child relationships, internet use, and personal characteristics. Journal of Adolescence 2004; 27:319–336.
32. Keith S, Martin ME. Cyber-bullying: creating a culture of respect in a cyber world. . Reclaiming Children and Youth 2005; 13:224–228.
33. Kowalski RM, Limber SP. Electronic bullying among middle school students. Journal of Adolescent Health 2007; 41:S22–S30.
34. Smith PK, Mahdavi J, Carvalho M, et al. Cyberbullying: its nature and impact in secondary school pupils. Journal of Child Psychology and Psychiatry 2008; 49:376–385.
35. Beran T, Li Q. Cyber-harassment: a study of a new method for an old behaviour. Journal of Educational Computing Research 2005; 32:265–277.
36. Ybarra ML, Diener-West M, Leaf PJ. Examining the overlap in internet harassment and school bullying: implications for school intervention. Journal of Adolescent Health 2007; 41:S42–S50.
37. Mitchell KJ, Ybarra M, Finkelhor D. The relative importance of online victimisation in understanding depression, delinquency, and substance use. Child Maltreatment 2007; 12: 314–324.
38. Raskauskas J, Stoltz AD. Involvement in traditional and electronic bullying among adolescents. Developmental Psychology 2007; 43:564–575.
39. Pellegrini AD, Long JD. A longitudinal study of bullying, dominance, and victimisation during the transition from primary school through secondary school. British Journal of Developmental Psychology 2002; 20:259–280.
40. Hogh A, Dofradottir A. Coping with bullying in the workplace. European Journal of Work and Organizational Psychology 2001; 10:485–495.
41. Mikkelsen EG, Einarsen S. Bullying in Danish work-life: prevalence and health correlates. European Journal of Work and Organizational Psychology 2001; 10:393–413.
42. Privitera C, Campbell MA. Cyberbullying: the new face of workplace bullying? CyberPsychology and Behaviour 2009; 12:395–400.
43. Rayner C. The incidence of workplace bullying. Journal of Community and Applied Social Psychology 1997; 7:99–208.
44. Chapell M, Casey D, De la Cruz C, et al. Bullying in college by students and teachers. Adolescence 2004; 39:53–64.
45. Pontzer D. A theoretical test of bullying behaviour: parenting, personality, and the bully/victim relationship. Journal of Family Violence 2010; 25:259–273.
46. National Telecommunications and Information Administration. A nation online: Entering the broadband age. US Department of Commerce Economics and Statistics Administration Retrieved from www.ntia.doc.gov/report/2004/nation-online-entering-broadband-age 2004.
47. Olweus D. (1993) *Bullying at school: What we know and what we can do*. Malden: Blackwell Publishing.
48. Olweus D. (1996) Norway Patent No. N-5015. University of Bergen: Research Center for Health Promotion.
49. Olweus D. (2010) Understanding and researching bullying: Some critical issues. In Jimerson SR, Swearer SM, Espelage DL, eds. *Handbook of bullying in schools: An international perspective.* New York, NY: Routledge/Taylor and Francis Group, pp. 9–33
50. Sheskin DJ. (1997) *Handbook of Parametric and Nonparametric Statistical Procedures.* 3rd ed. Boca Raton: Chapman and Hall/CRC.
51. Friedman MS, Koeske GF, Silvestre AJ, et al. The impact of gender-role nonconforming behaviour, bullying, and social support on suicidality among gay male youth. Journal of Adolescent Health 2006; 38:621–623.
52. Erdur-Baker O. Cyberbullying and its correlation to traditional bullying, gender and frequent and risky usage of internet-mediated communication tools. New Media and Society 2010; 12:109–125.
53. DeLonga K, Torres HL, Kamen C, et al. Loneliness, internalized homophobia, and compulsive internet use: Factors associated with sexual risk behaviour among a sample of adolescent males seeking services at a community LGBT center. Sexual Addiction and Compulsivity 2011; 18:61–74.
54. D'Augelli AR. Mental health problems among lesbian, gay, and bisexual youths ages 14 to 21. Clinical Child Psychology and Psychiatry 2002; 7:433–456.
55. Hillier L, Mitchell A. 'It was as useful as a chocolate kettle': sex education in the lives of same-sex-attracted young people in Australia. Sex Education 2008; 8:211–224.

Address correspondence to:
Dr. Marilyn Campbell
School of Learning and Professional Studies
Queensland University of Technology
Kelvin Grove QLD
Brisbane 4059
Australia

E-mail: ma.campbell@qut.edu.au