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Heterosexual and non-heterosexual young university students’ involvement in traditional and cyber forms of bullying

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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 non-heterosexual university students’ involvement in both traditional and cyber forms of bullying, as either bullies or victims. Five hundred and 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 non-heterosexual 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 non-heterosexual young people. Gender differences were also found. The implications of these results are discussed in terms of intervention and prevention of the victimization of non-heterosexual university students.

*Keywords:* Non-Heterosexual; Heterosexual; Bullying; Cyberbullying; University students
Past research within the last decade has begun to focus on traditional bullying, harassment and victimization of non-heterosexual school students (individuals who identify as lesbian, gay, 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 non-heterosexual youth\(^5\). Furthermore, current bullying research is generally focused on students in schools\(^6\),\(^7\),\(^8\) 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 towards a victim who cannot easily defend him- or herself, by one or more perpetrators, which is repetitive, intentionally harmful and occurs without provocation.\(^9\),\(^10\) 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.\textsuperscript{13,15}

Numerous studies suggest that involvement in bullying is a common experience for many young people.\textsuperscript{1,6,7} Research indicates that 30% to 40% of middle and high school students report being traditionally bullied.\textsuperscript{6} Despite these high rates, young people who identify as non-heterosexual are at even greater risk of involvement in traditional bullying than their heterosexual peers.\textsuperscript{1,7} These findings are extremely concerning for non-heterosexual 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.\textsuperscript{16,17,18,19,20,21} Perpetrators of bullying have also been found to experience difficulties with school, psychosocial adjustment, externalizing behaviors, and delinquency in late adolescence and early adulthood\textsuperscript{22,23}; substance abuse\textsuperscript{24}; and depression.\textsuperscript{25}

With non-heterosexual 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.\textsuperscript{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.’\textsuperscript{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.\textsuperscript{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 online. Unlike traditional forms of bullying, some literature suggests that there are no gender differences in involvement in cyberbullying.\textsuperscript{30,31} However, other reports indicate that girls outnumber boys in their involvement with cyberbullying,\textsuperscript{32,33} similar to traditional relational bullying.\textsuperscript{15} Despite the clear rise in technology use, current research suggests cyberbullying is less prevalent than traditional bullying.\textsuperscript{13,34}

Like traditional bullying, cyberbullying has been found to be a pervasive and damaging form of victimization. Victims of cyberbullying report: feelings of sadness, fear, and concentration difficulties\textsuperscript{35}; school problems such as truancy, detentions and suspensions\textsuperscript{36}; depression, substance use and delinquency\textsuperscript{37}; and feelings of hopelessness and powerlessness.\textsuperscript{38} Dooley and colleagues\textsuperscript{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 papers 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,\textsuperscript{10,39} bullying generally declines as children become older.\textsuperscript{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.\textsuperscript{9,40,41,42,43} Furthermore, there is some research suggesting that cyberbullying actually increases as children become older.
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33,38, although this has not been consistently reported13 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 non-heterosexual university students is seemingly nonexistent.

There is also a scarcity of research addressing the cyberbullying experiences of non-heterosexual young people. As non-heterosexual 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 non-heterosexual university students.

Method

Participants

Participants were 528 undergraduate students, consisting of 426 females (80.7%), 99 males (18.8%), and 3 not specified (0.6%), aged between 18 and 25 years old ($M = 19.52$ years, $SD = 1.99$), from an Australian university. Participation criteria was 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
 identifying as non-heterosexual, including 17 males (3.2%) and 73 females (13.8%), and 435 (82.4%) participants identified as being completely heterosexual, including 352 females (66.7%) and 81 males (15.3%). Two participants (0.08%) 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. 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 Q.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, 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 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 which asked participants about their gender, age, and sexual orientation. The sexual orientation question was adapted from a study by Berlan and colleagues 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: “Completely heterosexual (attracted to persons of the opposite sex)”; “Mostly heterosexual”; “Bisexual (equally attracted to males and females)”; “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% of participants identifying as completely heterosexual, 10.6% as mostly heterosexual, 3% as bisexual, 0.8% as mostly homosexual, 1.9% as completely homosexual, and 0.9% as questioning/not sure. Due to the skewed nature of the data, the six categories were collapsed into two: completely heterosexual and non-heterosexual.

Procedure

Surveys were administered to students in first year psychology lectures. Responses were anonymous and participation was voluntary with a completion time of approximately 10 minutes. Four hundred and 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 was
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 non-parametric 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 non-heterosexual male and female participants. A series of Chi-square 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 which contribute most to Chi-square are observed. According to Sheskin $^{50}$ standardized residuals with absolute values greater than 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% reported being a victim of traditional bullying in the preceding 12 months. Across all participants, a Chi-square test indicated that being a victim of traditional bullying was not independent of sexuality $\chi^2 (1, N = 524)$
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= 5.93, \( p = .02, \phi_C = -.11 \). Analysis of the standardized residuals revealed that a significantly higher than expected number of non-heterosexual 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 females, a Chi-square analysis revealed a significant association between traditional bullying victimization and sexuality \( \chi^2 (1, N = 424) = 5.46, p = .02, \phi_C = -.12 \); however, no such association was found for males \( \chi^2 (1, N = 97) = .32, p = .57, \phi_C = -.09 \). Analysis of the standardized residuals revealed that a significantly higher than expected number of non-heterosexual female participants had been traditionally bullied (standardized residual = 2.0).

**Traditional Bullying Perpetration and Sexuality**

A total of 5.1% of participants reported being a perpetrator of traditional bullying. Table 1 displays the rates of traditional bullying perpetration across genders. A Chi-square test of all participants indicated a significant association between traditional bullying perpetration and sexuality \( \chi^2 (1, N = 525) = 3.98, p = .046, \phi_C = -.10 \), with the standardized residuals revealing that non-heterosexual participants engaged in more traditional bullying than expected (standardized residual = 2.0). The association was found to be significant for females \( \chi^2 (1, N = 424) = 10.57, p < .001, \phi_C = -.17 \), with the standardized residuals indicating that non-heterosexual females were significantly more likely to be perpetrators of traditional bullying than expected. Due to low cell sizes, a Chi-square test could not be used to explore the association between sexuality and traditional bullying perpetration for males. Thus, a Fisher’s exact test was used, revealing that there was no significant association between sexuality and traditional bullying perpetration for males (\( p = .41 \)).

**Cyberbullying Victimization and Sexuality**
For cyberbullying, 11.6% of all participants reported being victims of cyberbullying in the preceding 12 months. A Chi-square test indicated no significant association between cyberbullying victimization and sexuality across all participants \( \chi^2(1, N = 526) = 1.13, p = .29, \phi_C = -.05 \). Rates for being a victim of cyberbullying across gender and sexual orientation are displayed in Table 1. Analyses revealed there was a significant association between cyberbullying victimization and sexuality for males \( \chi^2(1, N = 98) = 4.61, p = .03, \phi_C = -.25 \) but not females \( \chi^2(1, N = 425) = 0, p = 1.0, \phi_C = -.01 \). The standardized residuals showed that a significantly higher than expected number of non-heterosexual male participants had been cyberbullied (standardized residual = 2.1).

**Cyberbullying Perpetration and Sexuality**

Cyberbullying was reported to be perpetrated by 3.8% of all participants in the preceding 12 months. A Chi-square test indicated that there was no association between sexuality and cyberbullying perpetration across all participants \( \chi^2(1, N = 523) = 1.62, p = .20, \phi_C = -.07 \). Differences across genders can be seen in Table 1. In order 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 females \( (p = .41) \) and males \( (p = .19) \).

**Discussion**

This study investigated heterosexual and non-heterosexual 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, non-heterosexual 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 non-heterosexual males were more likely to be cyberbullied than heterosexual males. 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 females and the expression of masculinity by males.51

**Traditional Bullying**

Non-heterosexual females were more likely to report being both victims and perpetrators of traditional bullying than heterosexual females. Non heterosexual males reported being victims more than heterosexual males but this finding was only approaching significance. These findings are consistent with previous research in an adolescent population, which found that non-heterosexual females experienced higher levels of overall involvement in both bullying perpetration and victimization, whereas non-heterosexual males only experienced greater levels of victimization.1 As suggested by Berlan and colleagues1, the elevated levels of traditional bullying perpetration seen in non-heterosexual females may be in response to having faced heightened victimization themselves; however, the reason for the absence of similar trends in males remains unclear.

**Cyberbullying**

The rates of cyberbullying victimization were found to be more elevated in non-heterosexual than in heterosexual males. Interestingly, this finding was not replicated for females, despite the general trend in the literature that non-heterosexual young people often face a heightened risk of victimization.1,8 Erdur-Baker52 found that females 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 non-heterosexual female university students. Rates of cyberbullying perpetration did not differ with sexuality for either males or females, 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.\textsuperscript{13,34} This trend was replicated in the current study for all groups with the exception of non-heterosexual males, who were found to experience the same rates of both traditional bullying and cyberbullying. One explanation for this result may be that non-heterosexual males engage in more risky Internet behavior than others by spending more time on the Internet and disclosing more about themselves.\textsuperscript{52,53}

An interesting finding was that the rate of being a victim of traditional bullying for non-heterosexual university students in this sample was considerably lower than that of non-heterosexual school students,\textsuperscript{54,55} supporting previous research that involvement in traditional bullying declines with age.\textsuperscript{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.\textsuperscript{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 non-heterosexual 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 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 non-heterosexual university students, especially males, 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 non-heterosexual females; however, the reason for the absence of similar trends in males remains unclear. Future research could endeavor to explore this finding perhaps with qualitative methods. More research could also explore how non-heterosexual and heterosexual males and females spend their time on the Internet to extrapolate the potential reasons for the present findings that non-heterosexual males were equally victimized by traditional and cyberbullying but this was not the case for
females. Longitudinal studies could also explore the causal factors that impact on the bullying experiences of young non-heterosexual university students.
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Table 1

*Prevalence rates of being a victim or perpetrator of traditional bullying (TB) and cyberbullying (CB) for non-heterosexual (NH) and heterosexual (Het) males and females*

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Het (n = 81)</td>
<td>NH (n = 17)</td>
<td>Total (n = 98)</td>
</tr>
<tr>
<td></td>
<td>TB Victim</td>
<td>25%</td>
<td>35.3%</td>
</tr>
<tr>
<td></td>
<td>TB Perpetractor</td>
<td>9.9%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>CB Victim</td>
<td>11.1%</td>
<td>35.3%</td>
</tr>
<tr>
<td></td>
<td>CB Perpetractor</td>
<td>7.4%</td>
<td>17.6%</td>
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