The Influence of Bullying Behaviours on Sense of School Connectedness, Motivation and Self-Esteem

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The aim of the current study was to examine how bullying by peers relates to self-esteem, school connectedness and motivation for academic success in an Australian high school. Questionnaires were completed by 975 students across years 7 to 12. As predicted, male students were subjected to more direct forms of bullying than female students. However, contrary to expectations, there were no significant differences between males and females in their reported experience of indirect forms of bullying. Also, students in the lower year levels of high school reported being bullied more frequently than students in high year levels. Findings supported predictions that students who were bullied by their peers at school tended to report having lower levels of self-esteem, feeling less connected to their peers, teachers and school, and being less motivated to perform well at school. These results may have implications for school-based intervention programs that are designed to reduce bullying behaviours.

Bullying by peers is a serious problem in Australian schools. Bullying among schoolchildren can be physical and non-physical in nature, and most often involves a bigger, stronger or more powerful child bullying a smaller, weaker child. Olweus (1993) defined bullying as ‘a student who is bullied or victimised when he or she is exposed, repeatedly over time, to negative actions on the part of one or more other students’ (p. 9). These negative actions can include physical contact, verbal abuse, spreading rumours and intentional exclusion from a group. Olweus suggests that bullying also involves an imbalance of power, which corresponds to victims not being able to defend themselves. He further suggests that bullying is proactive aggression, which means that bullying occurs for no apparent reason and without provocation.

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Researchers generally agree that bullying usually comprises one or more of four features, namely 1) a form of aggression that is intentional and repeated over time; 2) an imbalance in power between bullies and victims; 3) methods that may be physical, psychological, verbal, or social; and 4) methods that may be either direct or indirect. Direct bullying involves the bully behaving overtly in an aggressive manner towards the victim (e.g., hitting, name calling), whereas indirect bullying involves a third party (e.g., spreading rumours). According to Salmivalli (1999), there are a number of participant roles in the bullying scenario, including the bully, victim, bully/victim, bystander, reinforcer, helper, and defender of the victim.

A number of international studies have investigated the prevalence of school bullying. Whitney and Smith (1993) completed a large-scale study involving 6758 students in the United Kingdom and reported that 27% of students aged between 7 and 11 years were bullied sometimes and that 10% of students were bullied at least once a week. They also found that 10% of students aged between 11 and 18 years were bullied sometimes, and that 4% of students were bullied once a week. Nansel, Overpeck, Pilla, Ruan, Simons-Morton and Scheidt (2001) examined bullying behaviours among 15,686 students in the United States and found that just over 8% reported being bullied more than once a week.

In a large scale study involving over 38,000 primary and secondary school students in Australia, results indicated that 17% of students were bullied at least once a week (Rigby, 1993). An earlier study by Rigby and Slee (1991) researched bullying among 685 Australian schoolchildren and found that approximately 10% of students aged between 6 and 16 years were commonly subjected to peer-group bullying. Males and younger children tended to be bullied more frequently than females and older adolescents. This was supported by Nansel et al. (2001) who found that males were more likely than females to be both the perpetrators and the victims of bullying, and that the frequency of bullying was higher for years 6 to 8 compared to years 9 to 10. Rigby and Slee (1991) suggested that physical bullying in particular occurs more among males than females because imbalances in size and strength among developing adolescents affect males more.

Gender differences can also be found in the type of bullying experienced by a victim. Males who are bullied are more likely than females to be subjected to direct forms of bullying, such as threats, physical harm and name calling. In contrast, females tend to be subjected to more indirect forms of bullying, including rumours, rejection and taking of personal belongings (Baldry & Farrington, 1999; Bjorkqvist, Lagerspetz & Kaukianen, 1992; Rivers & Smith, 1994). Clarke and Kiselica (1997) also suggest that males tend to be bullied by other males whereas females tend to be bullied by both males and females.

The consequences of bullying affect the health and wellbeing of the victim (Rigby, 1998). Based on cross-sectional surveys Rigby (2003) found that being bullied was related to lower levels of psychological wellbeing and social adjustment, and to higher levels of psychological distress and adverse physical health symptoms. On the basis of retrospective studies Rigby (1998) concluded that peer victimisation contributes to problems with health and wellbeing for many young people.
One aspect of psychological wellbeing that has been a focus of research is self-esteem, which is a measure of the value one places on oneself (Taylor, Peplau, & Sears, 2003). In general, victims of bullying tend to have lower levels of self-esteem compared to bullies and those who are not bullied (Boulton & Smith, 1994; Schafer et al., 2004; Seals & Young, 2003). However, Sharp (1996) found that students with high and low self-esteem had both been victims of bullying. It was those students who were bullied repeatedly that tended to have lower self-esteem. Olweus (1980) found that students who were persistently bullied were more anxious and insecure than other students, had a negative view of themselves, were often lonely and neglected by peers, and generally had low self-esteem. This adds to the imbalance in power between bullies and victims and invites bullies to continue with the harassment (Egan & Perry, 1998).

Studies have mostly examined the psychological correlates of bullying, despite the fact that most of the bullying incidents occur within the school environment. There have been few studies that have examined how the characteristics of the school environment relate to bullying. For instance, the degree to which a student is bullied may be somehow related to their sense of connectedness to their peers, teachers and the school. School connectedness has been defined as a student's sense of connection or belonging to one's school and the experience and caring of support from a network of peers and other school personnel, such as teachers (Maddox & Prinz, 2003).

In one of the few studies that have explored the relationship between peer harassment, school connectedness and academic achievement, Eisenberg, Neumark-Sztainer and Perry (2003) found a significant relationship between peer harassment and school connectedness. Students who experienced less peer harassment tended to like school more than those who experienced more peer harassment. In addition Eisenberg et al. showed that students who reported lower levels of peer harassment performed better academically and received higher grades compared to students who reported higher levels of peer harassment and received lower grades. An explanation could be that students who are not harassed by their peers at school may feel a sense of connectedness to their peers, teachers and school, which provides them with social support and enables them to perform better at school. Akos and Galassi (1998) suggest that connectedness may be related directly to academic outcomes. Equally, social support may provide students with motivation to perform well at school which, in turn, is expected to improve their academic achievement (Halamandaris & Power, 1999). Students with social support may receive more encouragement and assistance to help achieve academic goals.

The aim of the current study is to examine how bullying by peers relates to self-esteem, school connectedness and motivation for academic success in an Australian high school. It is predicted that students who are bullied by their peers at school will report lower levels of self-esteem, feel less connected with their peers, teachers and school, and will be less motivated to perform well at school. It is hypothesised that males will report more direct forms of bullying, such as hitting, and fewer indirect forms of bullying, such as spreading rumours. It is also hypothesised that students in the lower year levels of high school will report being bullied more than students in the higher year levels.
Method

Participants
Participants were recruited from a government school in metropolitan Melbourne, Australia. An overall response rate of approximately 75% provided a sample of 975 students (473 males and 493 females; 9 did not indicate their gender). Of the 975 students, 18.1% were in year 7, 17.6% in year 8, 18.5% in year 9, 18.8% in year 10, 15.8% in year 11 and 11.3% in year 12. While demographic information on socioeconomic status (SES) and first language spoken was not collected, the school largely catered for students from low to middle SES and students who spoke English as their first language.

Instrument: The Feelings About Yourself and School Survey (Secondary School Version; FAYAS)
The FAYAS (DEET, Victoria, 2000) is a 23-item questionnaire that measures students' perceptions of themselves and the school environment. Students are asked to indicate on a five-point Likert-scale the degree to which each statement is true, with responses ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire comprises 6 scales that measure self-esteem, connectedness to peers, connectedness to teachers and connectedness to school, academic motivation and bullying. The 5-item self-esteem measure examines the value students place on themselves (e.g., ‘on the whole, I am satisfied with myself’). The connectedness measures examine the students’ sense of connectedness to their peers (3 items; e.g., ‘I get on well with others’), their teachers (5 items; e.g., ‘At this school, there is a teacher who cares about me’) and their school (3 items; e.g., ‘I look forward to going to school’). The 3-item motivation scale assesses students’ motivation to learn (e.g., ‘I try very hard in school’). The 4-item bullying scale examines whether a student has been bullied in some form (e.g., ‘I have not been deliberately hit or kicked by another student recently’).

For the bullying scale, the items were reverse scored. A score was then calculated for each measure by averaging the items for the relevant scales so that higher scores for each scale indicated more agreement with that particular construct.

For the current study, Cronbach’s alpha was .80 for bullying, .87 for self-esteem, .81 for connectedness to school, .72 for connectedness to peers, .81 for connectedness to teachers and .82 for motivation.

Procedure
The questionnaires were administered to class groups of students during the normal school day and supervised by class teachers who were known to the students.

Results
Prior to analysis, the data were screened for response sets and missing values. Inspection of the 981 student responses found six cases where the data was completely missing. These six cases were omitted from the data. The expectation maximisation method algorithm was used to ascribe the values for missing values via the missing values option in SPSS 12.0. In addition, nine people failed to report their gender. Thus, complete data were available for 966 students.
A one-way between-subjects multivariate analysis of variance (MANOVA) with gender as the independent variable and types of bullying as the dependent variable was conducted to explore the differences in the types of bullying experienced by male and female students. The MANOVA indicated a significant difference in types of bullying experienced by males and females, Wilks $\Lambda = .09$, $F(4,952) = 17.68$, $p < .001$, partial $\eta^2 = .07$. Follow-up univariate tests showed that males reported being recently hit or kicked and having been teased more than females. However, there were no significant differences for male and female student responses for having been recently bullied and having rumours spread about them. The means, standard deviations and F-ratios for the types of bullying experienced by males and females are presented in Table 1.

A $2 \times 2$ independent groups analysis of variance (ANOVA) with gender and year level as the independent variables and frequency of bullying as the dependent variable was conducted to evaluate the effects of gender and year level on the frequency of bullying experienced by students. The means and standard deviations for frequency of bullying as a function of gender and year level are presented in Table 2.

The ANOVA indicated no significant interaction between gender and year level, $F(5,948) = 1.66$, $p = .14$, but significant main effects for gender, $F(1,948) = 8.34$, $p < .01$, partial $\eta^2 = .01$, and year level, $F(5,948) = 10.43$, $p < .001$, partial $\eta^2 = .05$, were found. The gender main effect indicated that male students tended to be bullied more frequently than female students. Further post-hoc tests (Student Neuman-Keuls, $p < .05$) for year level showed that students in years 7 to 10 were bullied significantly more than students in years 11 and 12. That is, students in the lower year levels at high school tend to be bullied more than students in higher year levels.

To examine the effects of bullying on self-esteem, connectedness to peers, teachers and school, and academic motivation, the frequency of bullying data were divided into three groups. The first group consisted of students who scored one standard deviation or more below the mean score. The second group included scores within one standard deviation from the mean score. The third group consisted of scores one standard deviation or more above the mean score. These groups were labeled ‘rarely bullied’, ‘sometimes bullied’ and ‘bullied a lot’ respectively.

### TABLE 1

<table>
<thead>
<tr>
<th>Type of bullying</th>
<th>Males ($n = 468$)</th>
<th>Females ($n = 489$)</th>
<th>$F(1,955)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bullied</td>
<td>M 2.38, SD 1.44</td>
<td>M 2.38, SD 1.46</td>
<td>.01</td>
</tr>
<tr>
<td>Hit or kicked</td>
<td>M 2.82, SD 1.58</td>
<td>M 2.10, SD 1.43</td>
<td>55.95***</td>
</tr>
<tr>
<td>Rumours spread</td>
<td>M 2.70, SD 1.38</td>
<td>M 2.63, SD 1.35</td>
<td>.54</td>
</tr>
<tr>
<td>Teased</td>
<td>M 2.59, SD 1.42</td>
<td>M 2.36, SD 1.40</td>
<td>5.89'</td>
</tr>
</tbody>
</table>

*** = $p < .001$, ** = $p < .01$, * = $p < .05$
A one-way independent groups MANOVA with categories of bullying as the independent variable and self-esteem, connectedness to peers, connectedness to teachers, connectedness to school and academic motivation as the dependent variables was conducted \((\text{Wilks } \Lambda = .75, F(10,1918) = 29.45, p < .001, \text{ partial } \eta^2 = .133)\). Follow-up univariate tests revealed a significant difference between groups for self-esteem, connectedness to peers, connectedness to teachers, connectedness to school and academic motivation. Further analyses (Student Neuman-Keuls, \(p < .05\)) showed a significant difference between all three groups for all dependent variables. Students who reported being bullied a lot were more likely to have lower self-esteem, a reduced sense of connectedness to their peers, teachers and school, and less motivation to perform well in school compared to students who reported being sometimes bullied. Equally, students who reported being bullied sometimes revealed lower self-esteem, were less connected to peers, teachers and school, and had less academic motivation compared to students who reported being rarely bullied. The means, standard deviations and \(F\) ratios for self-esteem, connectedness to peers, teachers and school, and academic motivation can be found in Table 3.

### TABLE 3

<table>
<thead>
<tr>
<th>Variables</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Alot</th>
<th>(F(2,963))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(M)</td>
<td>(SD)</td>
<td>(M)</td>
<td>(SD)</td>
</tr>
<tr>
<td>SE</td>
<td>3.99</td>
<td>.64</td>
<td>3.66</td>
<td>.73</td>
</tr>
<tr>
<td>CP</td>
<td>4.58</td>
<td>.45</td>
<td>4.00</td>
<td>.65</td>
</tr>
<tr>
<td>CT</td>
<td>3.56</td>
<td>.75</td>
<td>3.28</td>
<td>.76</td>
</tr>
<tr>
<td>CS</td>
<td>3.00</td>
<td>.89</td>
<td>2.75</td>
<td>.91</td>
</tr>
<tr>
<td>AM</td>
<td>4.12</td>
<td>.79</td>
<td>3.85</td>
<td>.82</td>
</tr>
</tbody>
</table>

\(* * * = p < .001, * * = p < .01, * = p < .05\)

SE = Self-esteem; CP = Connectedness to peers; CT = Connectedness to teachers; CS = Connectedness to school; AM = Academic motivation
Discussion

The results of the current study provide support for the hypotheses that students who are bullied by their peers at school tend to report lower levels of self-esteem, feel less connected with their peers, teachers and school, and are less motivated to perform well at school. As expected, male students reported experiencing more direct forms of bullying compared to female students. However, contrary to expectations, female students failed to report experiencing more indirect forms of bullying than male students. As predicted, students in the lower year levels of high school reported being bullied more than students in higher year levels.

Given that males tend to be bullied by other males (Clarke & Kiselica, 1997) the prediction that males would report experiencing more direct forms of bullying such as being physically hit or kicked was consistent with the findings of Baldry and Farrington (1999), Bjorkqvist et al. (1992) and Rivers and Smith (1994). Bjorkqvist et al. proposed that differences in the types of bullying employed by males and females may be related to maturation. Specifically, they suggest that maturation involves a certain level of verbal and social skill. As males tend to mature more slowly than females they may become frustrated at not being able to articulate their thoughts and feelings effectively and this may mean that they resort more to the use of hitting and kicking to deal with their frustration. The frustration-aggression hypothesis provides a social psychological explanation, intimating that frustration makes people angry, and that people are more likely to lash out when they are angry (Taylor, Peplau, & Sears, 2003). It may also be that males have fewer strategies to deal with frustration, especially with communicating their emotions. Moreover, bullying for males is more likely to be based on power, so the preference for males to use physical forms of bullying may reflect the greater physical strength (in general) of males compared to females (Rivers & Smith, 1994). Sanchez-Martín, Fano, Ahedo, Cardas, Brain and Azpiroz (2000) found that for males, testosterone is positively related to aggressive behaviour in their social interactions with others. They suggested that males who have higher levels of testosterone, or, those who are more physiologically sensitive to the presence of the hormone, irrespective of the actual level, make more use of physically aggressive forms of bullying.

Contrary to expectations, there were no significant differences between males and females in their reported experience of indirect forms of bullying, such as spreading rumours. While Baldry and Farrington (1999) found similar results, the single item of the FAYAS (DEET, Victoria, 2000) may not have been sufficiently sensitive to encapsulate the covert nature of indirect forms of bullying. The covert nature of indirect forms of bullying could result in students remaining unaware that rumours have been spread about them.

The prediction that students who were bullied would report lower levels of self-esteem supports previous work (e.g., Boulton and Smith, 1994; Schafer et al., 2004; Seals and Young, 2003). Students who are bullied tended to hold feelings of inadequacy about themselves which, in turn, may lead them to fear negative evaluations from their peers. Moreover, the more frequent and severe the bullying, the greater the feelings of inadequacy the victim may report (Sharp, 1996).

Consistent with Eisenberg et al. (2003), students who were bullied would report feeling less connected to their peers, less connected to their teachers and less
connected to their school. One possible explanation why students who are bullied feel less connected with their peers is that students may perceive their peers as not helping out. Cowie (2000) suggested that bystanders who intervene will cause the bullying to stop in most cases. As a result, students who perceive their peers as passive bystanders may form negative attitudes towards not only the perpetrators of the bullying, but also the bystanders. Hence students may form a ‘me’ and ‘them’ perspective in relation to their peers. For instance, students may initially perceive themselves as being similar to their peers and part of a larger collective. However, if they are bullied, the student might consider themselves to be different from their peers and feel possibly betrayed by them, thus reducing their sense of connectedness to their peers.

While earlier studies showed that bullying mostly occurs outside the classroom, Baldry and Farrington (1999) reported that at least two thirds of students in their study reported being bullied in the classroom. Based on these findings, a student who is bullied in the classroom may resent the teacher for their lack of awareness or intervention. Additionally, one reason why bullying can reduce how connected a student feels to their teacher is because ‘telling’ a teacher after being bullied has been found to make things worse compared to telling peers, counsellors or parents (Rigby & Barnes, 2002). Students who are bullied would be less likely to tell a teacher if it was thought that informing the teacher would result in the continuing or worsening of the bullying. It is also part of Australian culture that ‘telling’ or ‘dabbing’ is despised and looked down upon. This makes it difficult to inform on others as it may lead to negative peer evaluations and social exclusion.

Students who are bullied may be less willing to attend school due to the fear of being bullied again, leading them to feel less connected with school. Given that bullying is significantly related to reduced feelings of connectedness with peers and teachers (which are characteristics of the school climate), it may be reasonable to suggest that bullied students would feel less connected to their school, in part because of a lack of social connectedness. Feeling less connected with school may also be the product of the coping strategy selected by the victim. For instance, many of those that are bullied adopt a passive or emotion-focused coping strategy instead of a problem-focused strategy (Sharp, 1996; Mahady-Wilton, Craig, & Pepler, 2000). This may result in the student not attending school in order to avoid the distress caused by fear and anxiety.

The findings that students who reported being bullied were less likely to be motivated to perform well at school were consistent with Eisenberg et al. (2003). Students who have low self-esteem, feel less connected with their peers, teachers and school may be less likely to receive the encouragement and support that can provide them with motivation to perform well at school. As a result, students may feel a sense of helplessness, which could reduce academic motivation (DeBerand, Spielmans, & Julka, 2004).

The results of the current study imply that bullying may reduce a students’ self-esteem, how connected they feel to their school environment and their motivation to perform well at school. A methodological limitation to the current study is that the study is correlational and hence does not allow causal relationships to be inferred. For instance, although bullied students reported lower levels of self-esteem than students who were not bullied, it remains unknown whether the bullying causes the victim to lower their self-esteem or whether bullies target individuals with low self-esteem.
The Influence of Bullying Behaviours on Connectedness (Sharp, 1996). Future longitudinal research should focus on data that examines how bullying affects students over their time spent at high school. Such knowledge may better inform school-based interventions that reduce bullying behaviours. For instance, understanding that bullying affects a victims' sense of connectedness to their peers and teachers may encourage schools to implement peer and mentor development programs that focus on building and maintaining interpersonal relationships. Furthermore, professional development for teachers may focus on methods to recognize the passive coping strategies frequently employed by victims of bullying and how best to intervene to stop bullying.

The current study suggests that bullying remains a serious problem in Australian schools. While males in the earlier year levels of high school tend to be bullied the most, the frequency of bullying is still high across all students. These bullied students tend to have many psycho-educational problems that affect their ability to function. Future longitudinal research efforts are needed so that the effects of bullying can be monitored across the time spent at high school. Mentor programs and professional development for teachers may lead to reducing the frequency of bullying and limiting its negative effects.

References


Rigby, K., & Barnes, A. (2002). The victimised student’s dilemma: To tell or not to tell. Youth Studies Australia, 21(3), 33–36.


