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SURVEYING BULLYING USING PEER NOMINATION METHODS

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Objective - This study addresses the need for effective reporting of bullying in education, whereby a standardised peer nomination measure can reveal the extent of the problem on a class basis. **Methods -** Three Inner London secondary schools were included in the study: a boys' school (WES), a girls' school (PHS), and a mixed school (WA). Peer nominations of specified participant roles indicated the extent to which the student population was involved in bullying problems at class level. **Results -** Contingency tables of participant roles (Bully, Victim, Bully/Victim, and No Role) and school sample year groups (Year 7; Year 8; Year 9) are reported with chi square analysis of frequency distributions. The proportion of peer nominations and the number of students identified as a bully, victim or bully/victim varied in each class differed in each school. WA had the highest percentage of role nominations overall, WES had the highest percentage of nominations for the role of bully. A reduced number of nominations were also noted in consecutive year groups, particularly for the role of bully. The numbers of victims per class varied widely, but was seldom one victim, as postulated by the scapegoating hypothesis. **Conclusions -** A peer nomination measure can identify the extent of bullying and offer an opportunity to evaluate the impact of interventions by measuring change in a school and class. This can help education practitioners, and support service professionals tailor the provision available to students in school.

Key words: Bullying ▪ School ▪ Student ▪ Peer nomination

Introduction

The experience of bullying in school impacts the future of all the students involved. Bullies have been associated with anti-social behaviour and adolescent delinquency,

and victims associated with poor academic attainment and educational outcomes (1, 2). This highlights the need to address bullying problems taking place in education settings, in order to prevent such negative consequences. UK government guidelines on preventing and tackling bullying address school accountability for safeguarding students against this harmful behaviour (3). The UK school inspectorates will soon require schools to demonstrate the measureable impact of anti-bullying policies in place (4). This study, surveying bullying using peer nomination methods, asserts the use of standardised reporting methods of bullying in education, and for bullying in schools to be recorded.

Bullying and Cyberbullying: The defining features of bullying include the intention of the bully to cause harm to the victim, repeated efforts made to victimise the target, and an imbalance of physical, social or psychological power, used to the advantage of the bully. These key aspects are generally considered as characteristics of traditional bullying (5). Traditional forms of bullying incorporate direct physical and verbal abuse, as well as indirect behaviours, such as taking property or damaging possessions, humiliating, ignoring or rejecting others, spreading nasty lies and gossip (6). The dyadic relationship is defined by the bully purposefully directing aggression to a victim. Incidents involving one victim and one bully occur in just over a quarter of incidents (7). Indirect bullying involves collaboration with others (8). Cyberbullying involves the use of technology to bully others (9); this includes mobile phones (for example, text messages and phone calls) and the internet (for example, email and instant messengers). Cyberbullying occurs mostly outside of school settings but often involves school relationships, specifically members of the same class or year group (10).

The notion of peer involvement in the group process of bullying was introduced through research identifying participant roles (11). The key roles include the bully and victim as well as a bully/victim (considered both a bully and a victim), a bystander is deemed a passive witness, a defender intervenes to support the victim, and an assistant actively helps the bully. These roles are noted as relatively stable over time, particularly for the role of victim (12). The incidence of bullying is considered highest between the ages of eleven to thirteen (13). Reports of bullying then decrease with age (2). The transition from primary to secondary school (age 11) is indicated as a crucial adjustment period when bullying may increase (14).

The influence of group dynamics extends to the classroom setting, whereby the power of a group has been established as operating at the class level with different participant roles and bullying behaviours reported. Schuster (15) proposed a scapegoating model of victimisation, whereby most classes 'needed' one victim as a scapegoat for frustration, and presented evidence in support of this theory. However Atria, Strohmeier, and Spiel (16) report contrasting evidence with high variability of victims and bullies amongst classes. Similarly, Mahdavi and Smith (17) found relatively few classes with only one victim, such that the distribution of victims over classes approached what would be expected by chance, not supporting Schuster's theory. Investigation into systemic patterns of bullying and victimisation has suggested that serial bullying (selecting more than one victim), multiple victimisation (more than one bully selecting the same victim) may account for the inconsistent distribution of bullying roles in previous school research (18). Methodological concerns have since been addressed by researchers (19, 20) and peer nominations have recently been utilised as a method of identification, to help school counsellors intervene in bullying (21).

Identification and Measurement: The analysis of bullying in schools is most often

through survey methods, an effective measure allowing a breadth of knowledge to be gained from self, peer, teacher, or parent reports (22). Each method has merits in exploring differing aspects and viewpoints; attempts have been made to establish the effectiveness of such measures through comparing teacher, peer and self-assessments (23). Self report is an established and popular method of reporting, which offers a unique insight but provides only one perspective, and for such an emotive matter, this subjective viewpoint may not present an accurate reflection of problems in school (24). An alternative is peer nomination, reflecting bullying problems in school as perceived by the student population. This collective agreement reduces the risk of individual participant response bias on the part of the student, teacher or parent. A comparative analysis of self report and peer nomination provided supportive evidence for concurrent and predictive validity for group consensus ratings, asserting this method as more accurate than other assessments of bullying (25).

Research Rationale: The peer nomination survey method enables monitoring of bullying in education, identifying the degree to which the general student population is involved as the bullies, victims or bully/victims in each school. This information will help establish the extent of bullying behaviour in each school and evaluate the relative impact of age and education setting (comparing mixed sex with single sex, and traditional school with academy school) on the incidence of such problems in these schools.

Research Aim: This study examines the distribution of participant roles (Bully, Victim, Bully/Victim, No Role) as measured by peer nomination, to indicate the extent of bullying problems in a boys' school (WES), a girls' school (PHS), and a mixed school (WA), in each tutor group (a total of 27 in the whole sample) and year group (Year 7, Year 8, Year 9). Participant role data from three schools are tested for differences in the number of peer nominations between school samples (Study 1) and between year group samples within one school setting (Study 2).

Hypothesis: On the basis of previous findings (16), it is expected that a difference will be noted in the proportion of role nominations in each school, with variability in the number of nominations in each tutor group and year group.

Methods

Prior to conducting the research, ethical approval was granted by the psychology department ethics committees from two institutions of the University of London (Institute of Education and Goldsmiths). Each school under investigation permitted students to attend an anti-bullying session held during tutorials as part of the school curriculum.

A convenience sample was drawn from three secondary schools in central London: two single sex comprehensive schools where data collection was limited to one year group (comprehensives adopt the traditional education system and operate under the local education authority), and a mixed sex academy school where data collection was extended to three year groups (academies are new education initiatives introduced by the government and independent of local authority control). The national statistics for Inner London during the time of study are reported for each school local authority (School Census 2008/2009).

WES is a small boys' school with approximately 600 male students and four tutor groups in each of the five school years. PHS is a large girls' school with approximately 800 female students and five tutor groups in each school year. Both WES and PHS are well established secondary schools. The reported demographics of the local authority in which

the two schools are based are: 45% White; 22% Black; 16% Asian; 11% Mixed ethnicity; 6% Other ethnic background. In addition, 34% of students were eligible for free school meals and 47% speak English as an additional language. WA is a newly established co-educational academy school, educating approximately 900 students and six tutor groups with relatively equal proportions of males and females in each school year. The reported demographics of the local authority in which the school is based are: 32% White; 22% Black; 14% Asian; 10%; Mixed ethnicity 22% Other background; 37.6% were eligible for free meals and 61.1% had English as an additional language.

Participants

Student participation was based on attendance on the day of the study at the particular schools under investigation. Parental approval was sought by way of a letter home about the planned session during tutorial (non-response was considered as initial consent by proxy). No parental refusal was recorded as those students who did not wish to participate on the day were not required to do so (see next paragraph for overall response rates). WES and PHS students were invited to participate in Study 1 during 2007/2008 and WA students were involved in Study 1 and Study 2 during 2008/2009.

Study 1 participants were all Year 7 students (average age 11.5 years), in the first year of secondary school. Overall, 15 tutor groups took part in the survey (4 from WES, 5 from PHS & 6 from WA). Out of a possible 460 Year 7 students (120 WES, 180 PHS, & 180 WA), a total of 385 participated (99 WES, 131 PHS & 155 WA students), of which 186 students were male (99 WES & 87 WA) and 199 female (131 PHS & 68 WA). Study 2 participants were all Key Stage Three (KS3) students attending WA, including Year 7 (Y7 aged 11 to 12), Year 8 (Y8 aged 12 to 13), and Year 9 (Y9 aged 13 to 14). In total, 18 tutor groups took part (six each from Y7, Y8, Y9) with 456 participants out of a possible 480. Of which, 155 students were from Y7 (87 males 68 females), 146 Y8 (comprising 71 males 75 females) and 155 Y9 (83 males 72 females).

Materials

The following participant roles were included in assessment: bully, victim, bully/victim (both bully and victim) and no role (not nominated). These roles were allocated through peer nomination (15). Students were identified as bullies or victims (for example, a student nominated as a bully by classmates would be allocated the role of bully), the role of bully/victim was assigned when the peer nominations for bully and victim were both high, and those with a low number of nominations were assigned to the no role category (a student identified by peers as not involved in bullying). The decision rule to retain roles with 25% of the class nominations was based on previous research, where absolute criteria between 10% and 50% have been applied to nomination data (16, 17, 26), in this instance 20% was considered lenient and 30% was deemed stringent (increasing or reducing the total number of nominations in the whole dataset by almost one quarter).

Procedure

During each session the purpose of the study was explained to the group, and concerns of confidentiality and participation were addressed through group discussion. To establish an understanding of bullying, definitional information (including aspects of power imbalance, repetition and intentionality) and examples were presented to each group. Peer nominations were obtained through a questionnaire, including a

detachable list of identification numbers replacing student names to ensure anonymity. Participants were asked to identify bullies or victims from the class register, they were able to select as many or few peers as they wished, but instead of giving names, they were asked to write down the corresponding student identification number. As part of the debrief, leaflets produced by the local authority were provided to help students find access to support.

Results

Contingency tables enabled analysis of participant role distribution (Bully, Victim, Bully/Victim, and No Role), across the school samples (PHS, WES, WA) and school year group (Y7, Y8, Y9). Categorical data from the three schools were collated for descriptive statistics of participant role nominations in each tutor group.

Study 1: Data collected from WES, PHS, and WA enabled an analysis of role distribution amongst the school groups. In total, 31% of the whole school sample was identified as involved in bullying, of which 13% were nominated as bullies, 15% victims, and 3% bully/victims. A chi-square test indicated a significant difference in the distribution of participant roles across the three school samples, χ^2 (6, n=385)=14.453, p=0.025, Cramer's V=0.137 (Table 1). Nominations in each tutor group across the three schools was between 12% and 65% (students identified as a bully, victim or bully/victim). Nominations in each tutor group ranged from 17% to 42% in WES; from 12% to 31% in PHS; from 25% to 65% in WA (Table 2).

Study 2: Data from WA Key Stage Three (KS3) groups of Y7, Y8, and Y9 enabled analysis of role distribution amongst year groups. In total, 29% of the whole WA KS3 sample was identified as involved in bullying, of which 9% were nominated as bullies, 18% victims, and 2% bully/victims. A chi-square test indicated a significant difference in the distribution of participant roles across the three KS3 year groups, χ^2(6, n=456)=14.636, p=0.023, Cramer's V=0.127 (Table 3). Nominations in each tutor group across the three KS3 year groups was between 0% and 65% of students (identified as a bully, victim or bully/victim). Nominations in each tutor group ranged from 25% to 65% in Y7; from 5% to 43% in Y8; from 0% to 62% in Y9 (Table 4).

Table 1 Frequency of school sample role nominations

School sample	Participant roles					
	Victim (n)	Bully (n)	Bully/Victim (n)	No role (n)	Total (n)	Nominations (%)
WES	11	18	3	67	99	32
PHS	17	11	1	102	131	22
WA	31	22	7	95	155	39
Total	59	51	11	264	385	31
Nominations (%)	15	13	13	69	-	-

WES=boys' school; PHS=girls' school; WA=mixed school.

Table 2 Frequency of school tutor group role nominations

Year 7 Tutor group	Participant roles					
	Victim (n)	Bully (n)	Bully/ Victim (n)	No role (n)	Total class (n)	Nominations (%)
WES Class 1	2	5	1	16	24	33
WES Class 2	5	5	1	15	26	42
WES Class 3	4	4	1	16	25	36
WES Class 4	0	4	0	20	24	17
WES total role (%)	11	18	3	68	-	-
PHS Class 1	3	1	0	21	25	16
PHS Class 2	5	2	0	20	27	26
PHS Class 3	4	4	0	18	26	31
PHS Class 4	1	2	0	23	26	12
PHS Class 5	4	2	1	20	27	26
PHS Total role (%)	13	8	1	78	-	-
WA Class 1	3	3	1	21	28	25
WA Class 2	4	9	4	9	26	65
WA Class 3	7	3	1	14	25	44
WA Class 4	7	0	0	18	25	28
WA Class 5	3	3	1	16	24	30
WA Class 6	7	4	0	17	28	39
WA Total role (%)	20	14	5	61	-	-

WES=boys' school; PHS=girls' school; WA=mixed school.

Table 3 Frequency of WA year group role nominations

WA KS3 Sample	Participant roles					
	Victim (n)	Bully (n)	Bully/ Victim (n)	No role (n)	Total year (n)	Nominations (%)
Year 7	31	22	7	95	155	39
Year 8	24	12	1	109	146	25
Year 9	25	9	3	118	155	24
Total role	80	43	11	322	456	29
Nominations (%)	18	9	2	81	-	-

WA KS3=mixed school Key Stage 3 year groups.

Table 4 Frequency of WA KS3 tutor group role nominations

WA KS3 Tutor group	Participant roles					
	Victim (n)	Bully (n)	Bully/ Victim (n)	No role (n)	Total class (n)	Nominations (%)
Year 7 Class 1	3	3	1	21	28	25
Year 7 Class 2	4	9	4	9	26	65
Year 7Class 3	7	3	1	14	25	44
Year 7 Class 4	7	0	0	18	25	28
Year 7 Class 5	3	3	1	16	23	30
Year 7 Class 6	7	4	0	17	28	39
Y7 Total role (%)	20	14	5	61	-	-
Year 8 Class 1	1	0	0	21	22	5
Year 8 Class 2	2	0	0	21	23	9
Year 8 Class 3	7	0	0	15	22	32
Year 8 Class 4	3	2	0	22	27	19
Year 8 Class 5	3	6	1	14	24	42
Year 8 Class 6	8	4	0	16	28	43
Y8 Total role (%)	16	8	1	75	-	-
Year 9 Class 1	5	1	0	21	27	22
Year 9 Class 2	3	0	1	21	25	16
Year 9 Class 3	5	5	0	17	27	37
Year 9 Class 4	2	0	0	24	26	8
Year 9 Class 5	0	0	0	26	26	0
Year 9 Class 6	10	3	2	9	24	62
Y9 Total role (%)	16	6	2	76	-	-

WA KS3=mixed school Key Stage 3 year groups.

Research Summary: In the first study of Year 7 students across the three schools, the incidence of bullying was highest in WA, contributing the largest number of participant role nominations overall. WES had a higher percentage of nominated bullies than PHS and WA. In the second study of the KS3 WA sample across three year groups, the overall percentage of nominations was highest in Year 7 when compared with Year 8 and Year 9, particularly for the role of bully. At class level, the percentage of students nominated in each of the 27 tutor groups across the two studies varied considerably, ranging from 0% to 65% (including all nominations for the role of bully, victim and bully/victim).

The dataset as a whole comprised 27 tutor groups across the three schools (WES: 4 tutor groups; PHS: 5 tutor groups; WA: 18 tutor groups), of which the Year 7 group was from WES, PHS and WA (15 Y7 tutor groups in total), Year 8 and Year 9 were from WA (12 tutor groups with 6 in each year). The nominations in each tutor group include: 4 groups with 0% to 10% of students identified as a bully, victim or bully/victim; 5 groups with 11% to 20%; 6 groups with 21% to 30%; 6 groups with 31% to 40%; 4 groups with 41% to 50% and 2 groups with more than 50% of students nominated.

Discussion

The purpose of this research was to analyse peer nomination data to examine the extent of bullying problems in each school, tutor group and year group. It is evident that these problems are reported differently in every group and that the bullying recorded in each school is not a result of one or two tutor groups skewing the overall results presented. Further consideration of these findings will be given with reference to existing research.

This study contributes to literature on class level research into bullying (15, 16, 17). The approach adopted makes use of previous research recommendations of peer nomination methodology (19, 20, 26), by selecting groups which shared a considerable period of learning time. Although bullying may also occur outside of the classroom setting, tutor groups present a potentially supportive environment where such issues can be addressed (21). Examining student involvement in the group process of bullying paves the way for further investigation of the full range of roles evident in each tutor group (for example: the bystander, defender and assistant).

The data also provide evidence relevant to the scapegoating hypothesis of Schuster (15), predicting one victim per class. The results show considerable variability of participant roles across tutor groups. In particular, classes with only one victim were quite rare, as most had more than one or two victims, refuting the apparent 'need' for a group to assign one individual to the role of victim as purported by Schuster's (15) theory. This evidence supports the findings of Atria et al. (16), and the alternative hypothesis that the number of victims depends more on individual factors (risk factors for being a victim, such as shyness or disability), and school factors (school climate, an effective school anti-bullying policy) rather than within-class dynamics. The results of Study 2 show a difference in the number of role nominations between the three year groups within one school sample, and these findings support research noting an increase in reports of bullying in the transition year to secondary school (14).

It is important to note the pattern of distribution amongst the participant roles may be confounded by fundamental differences between the schools themselves. It is therefore difficult to make a fair comparison between the school samples upon which to draw reliable conclusions. Whereas WES and PHS are single sex comprehensive schools, in contrast, WA is a mixed sex academy school. The impact of such factors on research findings may be twofold, with single sex and co-educational settings influencing the school environment, along with traditional comprehensive and modern academy schools presenting disparate learning environments, possibly confounding the reliability of the evidence. However, the evidence presented suggests school based interventions, which fail to acknowledge the impact of bullying in classroom settings, might be compromised. To address such concerns whole school approaches to bullying prevention could be adapted to meet the needs of each class. It is necessary for schools to introduce a measurement of bullying at class level to identify those groups with bullying problems. This information would enable attention to be directed to specific classes, which is especially useful for schools with limited time and resources.

Conclusion

This study of bullying established that allocation of participant roles varied considerably amongst tutor groups across the three schools and within the year group school sample. This evidence supports previous research findings of group dynamics in bullying operating at the class level (16, 17). Such measures of bullying identify the true extent of

the problem and offer an opportunity for schools to evaluate the impact of interventions, by measuring change at class level from the perspective of the students themselves (3, 4). This information could help tailor the provision of support appropriate to the needs of students involved in the group process of bullying.

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