Cyberbullying in schools:

Nature and extent of Canadian adolescents' experience

Qing Li, Ph.D

University of Calgary

Paper presented at the annual conference of AERA

Montreal, April 2005

Abstract

This study is an exploration of the cyberbullying issue. The primary focus is on the examination of the nature and extent of adolescents' cyberbullying experiences. Particularly, the following research questions guide this exploration: 1) To what extent do adolescents experience cyberbullying? 2) What are the characteristics of cyberbullying? 3) What are the types of tools used for cyberbullying?

A survey of 177 grade seven students (80 males and 97 females) was analyzed to answer the research questions. The results show that almost 54% of the students were bully victims and over a quarter of them had been cyber-bullied. More than half of the students knew someone being cyber-bullied. Over 40% cyberbully victims had no ideas who cyber-bullied them. Further, there was a close tie among bullies, cyberbullies, and cyberbully victims.

Introduction

School violence is a serious social problem both in Europe (Clarke & Kiselica, 1997; Hoover & Juul, 1993) and North America (Hoover & Olsen, 2001; Charach, Pepler, & Aiegler, 1995). This problem is particularly persistent and acute during junior high/middle school period (National-Center-for-Educational-Statistics, 1995). Possible reasons explaining this high frequency of school violence observed include the drastic biological and social changes experienced by adolescents. "[A]dolescence is a period of abrupt biological and social change. Specifically, the rapid body changes associated with the onset of adolescence and changes from primary to secondary school initiate dramatic changes in youngster's peer group composition and

status. Changes in peer group availability, individuals' status within groups, and peer support confront youngsters as they are entering new, larger, and typically impersonal secondary schools. One way in which peer status is achieved in these sorts of environments, especially by boys, is through the selective use of aggression and other agonistic strategies" (Pellegrini & Bartini, 2000).

Much of school violence, particularly during adolescence, involves students bullying their peers (Boulton, 1999). According to Hoover and Olsen, "up to 15% of students in American schools are frequently or severely harassed by their peers. … Only a slim majority of 4th through 12th graders … (55.2%) reported neither having been picked on nor picking on others" (Hoover & Olsen, 2001). Further, bully-victim cycles are found where individuals are both bullies and victims (Ma, 2001; Pellegrini & Bartini, 2000; Schwartz, Dodge, & Coie, 1993; Schwartz, Pettit, Dodge, & Bates, 1997). More importantly, it is reported that in many school-shooting cases, the bully played a major role (Dedman, 2001).

The Problem of Cyberbullying

The use of the new technology such as the Internet and cell phones has increased dramatically in recent years. In education, the increasing access to new technology can increase students' social interaction and enhance collaborative learning experiences. Substantial research studies have shown that computers in classrooms can have positive effects on learning of all subjects. The introduction of electronic communication into classrooms, however, also brings problems that deserve our attention. One such issue concerns the increasing serious cyberbullying problem in schools, i.e. the use of electronic communication devices to bully others.

Although many teachers and administrators now recognize the problem of school bullying, few are aware that students are being harassed through electronic communication.

Parallel to this lack of awareness by school professionals, researchers have yet to examine the nature of cyberbullying (Beran, 2003). The growing number and the level of severity of cyber-bulling call for our educators, researchers, administrators and authorities to take actions.

But before we can tackle this problem, a better understanding of the issue is necessary. Because cyberbullying is a new territory, we know little about it. This study, hence, investigates the nature and the extent of adolescences' experience of cyberbullying. In this paper, "bullying" refers to bullying in the traditional sense, and "cyberbullying" refers to bullying via electronic communication tools.

Theoretical Perspectives

The theoretical perspectives of this study are based on the framework developed by Constantine, Curry, Diaz, and Huh-Kim (2000). This framework builds on the theory of reasoned action and includes five construct domains: "beliefs and attitudes", "perceived peer norms", "perceived self-efficacy", "behavioral intentions", and "behaviors".

Research questions

This study is an exploration of the cyberbullying issue. The primary focus is on the examination of the nature and extent of adolescents' cyberbullying experiences. A secondary focus is on the investigation of adolescents' perception of school climates and safety strategies. Particularly, the following research questions guide this exploration:

1. To what extent do adolescents experience cyberbullying?
2. What are the characteristics of cyberbullying?
3. What are the types of tool used for cyberbullying?

Methods

The subjects for this study were randomly selected from two middle schools in a large western Canadian city. The two schools were chosen because of the schools' enthusiasm about

technology. Both schools are involved in a large educational technology integration project of the Province. One school is located in an area where residences are mainly at middle class range, and the other is in a low/middle SES area. A total of 177 grade seven students (80 males and 97 females) completed the questionnaire. Among them, only 7.6 percent are ESL students. Further, 69.7 percent students are white, 9% Asian, and about 20 percent are Black, Hispanic Aboriginal, or other. See table 1 for details. Over half of the students have reported that their school grades are usually above average, while 46.3% of them are average. Only a couple of the students reported their grades to be below average.

An anonymous survey was used which includes two major areas: students' demographic data and their experience related to cyberbullying. A total of twenty-six questions including the frequency of using computers are analyzed to answer the research questions of this study. In this paper, quantitative statistical analysis is used to examine adolescents' experience of cyberbullying. Particularly, mainly inferential statistics are employed to explore the extent of cyberbullying, the characteristics of cyber-bullies and their victims, and student perceptions of safety related variables.

Summary of the Results

Extent

Overall, almost 54% of the students were bully victims and over a quarter of them had been cyber-bullied. Almost one in three students had bullied others in the traditional form, and almost 15 % had bullied others using electronic communication tools. 52.4% of the students reported that they knew someone being cyber-bullied.

Who cyberbully those students? The data showed that 31.8% of the cyberbully victims were bullied by their school mates, 11.4 % by people outside their schools, and 15.9% by multiple

sources (i.e. school mates, people outside, and others). The highest percentage, that is, 40.9% had no ideas who cyber-bullied them.

How often did cyberbully occur? On the one hand, almost 60% of the cyberbully victims were cyber-bullied 1-3 times, over 18% of them were cyber-bullied 4-10 times, and 22.7% of them were cyber-bullied more than 10 times. On the other hand, for those cyber-bullies, over 43% of them cyber-bullied others less than 4 times, over 30% did 4 to10 times, and over 26% of them cyber-bullied others over 10 times.

Characteristics

What are some characteristics of cyber-bullies and their victims? The data analysis showed majority of the cyberbully victims are females. Although more males than females were reported to be cyber-bullies, the difference between the two was small. Half of the cyberbully victims had above average school grades, whereas less than 35 % of the cyber-bullies reported their school grades were above average. One interesting pattern was that while the majority of the cyberbully victims (88.6%) used computers at least once a week, every single cyberbully reported that he/she used computers at least 4 times per month. See table 4 for details.

The results show that almost half of the bully victims also had bullied others. Within the group who reported being bullied in schools (i.e. bully victims), about a third reported that they had also been cyber-bullied (i.e. cyberbully victims); and 16.7% were also cyber-bullies. Within the school bully group (i.e. bullies), 85.5% reported that they were also bully victims. In addition, almost 30% in this group were cyber-bullies and 27.3% were cyberbully victims. That is, most of the bullies were also bully-victims. Aside from regular bullying, many bullies also harassed others using electronic communication tools.

Type of tools

What types of electronic communication are used for cyberbullying? The data analysis showed that 22.7% of the cyberbully victims had been assaulted only by email, 36.4% in chat rooms only, and another 40.9% had been assaulted by multiple sources including email, chat room, and cell phone.

For cyber-bullies, the pattern is somewhat similar. Over 9% reported that they only used email, 36.4% used only chat-room, and almost 55% used multiple sources to bully. That is, majority used more than one type of electronic communication to bully others. See table 6 for details.

To what extent do adults in schools try to prevent cyberbullying? The data analysis showed that only 67.1% of the students believed that adults in school tried to stop cyberbullying when informed. For those students who had been cyber-bullied, only 34.1% said that they told adults about the incidents. Similarly, for those 87 students who knew someone being cyber-bullied, only 34.5% told adults. Obviously, majority of the students chose to be quiet when they were cyber-bullied or knew someone being cyber-bullied.

Conclusion

This study contributes to the extant literature on bullying in several conceptual areas. First, cyberbullying is a bullying problem occurring in a new territory. Few research studies have examined bullying issue in this new context. The astonishing high percent of adolescents who had experiences of cyberbully observed in this study suggests that cyberbullying is becoming an increasingly vital problem for schools and the whole society.

Second, in this paper, bullying and cyberbullying are examined at “a point where it had seldom been studied. Extant studies, for the most part, studied primary school children. The early adolescent period merits attention because it is a period, labeled a ‘brutalizing period’, where disruptions in social networks afford opportunities for peer victimization and aggress to establish

peer status" (Pellegrini & Bartini, 2000). Consistent with this, I found that high percentages of the students are involved in bullying or cyberbullying.

Third, bullying, cyberbullying, and victimization are explored in this study considering them as an integrated whole. Though some studies (Ma, 2001; Pellegrini & Bartini, 2000) have examined bully-victim cycles, conceptually and most importantly, this work established, for the first time, the relationships amongst bullying, cyberbullying, and victimization. The close tie amongst bullies, cyber-bullies, and their victims found in this study underscores the importance of holistic approaches for the research and possible intervention programs related to cyberbully issues.

Like any research study, this study has some limitations. For example, the survey question which intended to discover frequency of student using computers did not consider that majority of students in the schools have easy access to computers in this urban city. Simply categorizing it into rare, 1-3 times per month, and over 4 times a month does not appropriately reflect the current trend of access in educational technology. Further, the data were collected from an urban city, we need to be cautious when generalize the findings to other regions.

References

Beran, T. (2003). *Cyber-Harassment: A New Method for an old Behavior* (Grant proposal). Calgary: University of Calgary.

Boulton, M. (1999). Concurrent and longitudinal relations between children's playground behavior and social preference, victimization, and bullying. *Child development, 70*(944-954).

Hoover, J., & Olsen, G. (2001). *Teasing and harassment: The frames and scripts approach for teachers and parents.* Bloomington, IN: National Educational Service.

Ma, X. (2001). Bullying and being bullied: To what extent are bullies also victims? *American Educational Research Journal, 38*(2), 351-370.

Morrison, B. (in press). Restorative Justice for bullies and victims in schools: A program that fosters responsible citizenship. In *Australian Institute of Criminology's Trends and Issues series*: Australian Institute of Criminology.

National-Center-for-Educational-Statistics. (1995). *Student victimization in schools*. Washington, DC: Hemisphere.

Pellegrini, A., & Bartini, M. (2000). A longitudinal study of bullying, victimizatioin, and peer affiliation during the transistion from primary school to middle school. *American Educational Research Journal, 37*(3), 699-725.

Schwartz, D., Dodge, K., & Coie, J. (1993). The emergence of chronic peer victimization. *Childe development, 64*(1755-1772).

Schwartz, D., Pettit, G., Dodge, K., & Bates, J. (1997). The early socialization and adjustment of aggressive victims of bullying. *Child development, 68*, 665-675.

TABLES

Table 1. Demographic of the students

Ethnicity (%)			Gender (%)		Academic achievement (%)		
white	**Asia**	**other**	**M**	**F**	**Above average**	**Average**	**Below average**
68.9	9	20.9	45.2	54.8	50.3	46.3	1.1

*n=177
**Total percentages may not add up to 100 due to missing values.

Table 2. Percentages of student experience of bullying & cyberbullying

	Yes	**No**
Bully	31.1	67.8
Bully victim	53.7	44.1
Cyberbully	14.5	76.8
Cyberbully victim	24.9	74.0

*n=177
**Total percentages may not add up to 100 due to missing values.

Table 3. Frequency of cyberbullying incidents

	Cyberbully victim (n=44)	**Cyberbully (n=23)**
1- 3 times	59.1%	43.5%
4-10 times	18.2%	30.4%
Over 10 times	22.7%	26.1%

Table 4. Characteristics of cyber-bullies and victims

	Ethnic (%)		**Gender (%)**		**Academic achievement (%)**			**Frequency of using computer (%)**	
	white	**other**	**M**	**F**	**Above average**	**Average**	**Below average**	**Less than 3 times per month**	**At least 4 times per month**
Cyberbully victim (n=44)	61.4	38.6	38.6	59.1	50	47.6	2.4	9	88.6
Cyberbully (n=23)	69.6	30.4	52.2	43.5	34.8	56.5	4.3	0	100

*****Note: some percentages may not add up to 100 due to missing values.

Table 5. Percentage related to bully-victim cycle

	Bully victim	**Bully**	**Cyberbully**	**Cyberbully victim**
Bully-victim (N=94)	100%	49.5%	16.7%*	31.9%
Bully (n=55)	85.5%	100%	29.8%**	27.3%

*Due to system missing data, here, N=84
**Here, N=47

Table 6 type of electronic communication used for bullying

	Cyberbully victim (n=44)	**Cyberbully (n=23)**
email	22.7%	9.1%
Chat-room	36.4%	36.4
Multiple sources	40.9%	54.5%

Table 7 Percentage relates to safety strategies

	Know safety strategies (%)	**Taught by (%)**	
		Self	**Parents, schools, and/or multiple sources**
Total (n=166)	75.4	28.3	47*
Cyber-bullies (n=23)	78.3	52.2	26*
Cyberbully victims	70.5	36.4	31.4*

* Percentages may not add up to 100% due to missing values.

Table 8. Correlation coefficient related to bully and cyberbully

	n	**Kendall's tau**	**p**
Bully & cyberbully	159	.298**	<.001
bully & cyberbully victim	174	.031	.683
bully victim & cyberbully	156	.101	.207
bully victim & cyberbully victim	172	.175*	.022
Cyberbully & cyberbully victim	159	.305**	<.001

Appendix I

Survey

Section one: About You (circle one):

1. Sex: Male Female Grade level_____ Year of birth_____
2. How do you describe yourself:
   Asian Hispanic Black White Aboriginal Other
3. English is my second language Yes No
4. My school grades are usually: above average average below average
5. I use computers: rarely 1-3 times/month at least 4 times/month

Part two: Cyberbully is defined as harassing using technology such as email, computer, cell phone, video cameras, etc. Bullying occurs when people say mean and hurtful things or make fun of another person or calls him/her mean and hurtful names, completely ignore or exclude him/her from their group of friends or leaves him/her out of things on purpose, tells lies or spreads false rumors about him/her, sends mean notes and tries to make other students dislike him/her, and other hurtful things like that. When we talk about bullying, it is difficult for the person being bullied to defend himself or herself. We also call it bully, when a person is teased repeatedly in a mean and hurtful way. But we don't call it bullying when the teasing is done in a friendly and playful way. Also, it is not harassment when two people of about equal strength or power argue or fight.

1. I have *been bullied* during school: yes no
2. I have *bullied* others: yes no
3. I have been *cyber- bullied* (e.g. via email, chat room, cell phone): yes no
4. If yes, I was *cyber-bullied* via (circle all that apply): email, chat room, cell phone other, specify_____
5. If yes, I was *cyber-bullied* by: school mates, people outside school, I don't know who
6. If yes, I have been *cyber-bullied*: less than 4 times, 4-10 times, over 10 times
7. I have *cyber- bullied* others: yes no
8. If yes, I *cyber-bullied* others via (circle all that apply): email, chat room, cell phone other, specify_____
9. If yes, I have *cyber-bullied* others: less than 4 times, 4-10 times, over 10 times
10. I know someone who has *been cyber-bullied*: yes no
11. When adults in school know *cyberbullying*, they try to stop it: yes no
12. When I was *cyber-bullied*, I told adults (e.g. parents, teachers): yes no
13. When I knew someone being *cyber-bullied*, I told adults: yes no
14. I know safety strategies in cyberspace: yes no
15. If yes, I learned safety strategies:
    By myself, taught by parents, taught in schools, other, specify: _____