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LIVING IN AN ‘ELECTRONIC AGE’: CYBERBULLYING AMONG IRISH ADOLESCENTS

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The prevalence and nature of specific forms of cyberbullying (CB) in a sample of Irish post-primary school students, aged 12 to 18 years (n=122), are examined. Overall, CB was found to be less frequent than traditional bullying (TB). Although all forms of CB were largely short-term, CB was regarded by participants as worse than TB, with the notable exception of email. No significant relationships emerged between several background variables and CB. Overall rates of CB seem to be lower than in other countries, but further research would be required to determine its prevalence and nature.

It is widely acknowledged that bullying may have a considerable negative impact on social and emotional development (Perren & Hornung, 2005; Whitney & Smith, 1993). According to Olweus (1999), bullying in the traditional sense, occurs when a student is ‘exposed repeatedly and over time to negative actions on the part of one or more other students’ (p.10). The advent of modern technology has brought with it a new type of bullying called ‘cyberbullying’ (CB) which is defined as ‘an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself’ (Smith, Mahdavi, Carvalho, & Tippett, 2006, p. 6). Research on CB is very much in its infancy (Campbell, 2005), although some preliminary research has been conducted.

Some of the earliest studies in this field in Britain suggest that between 20 and 25% of teenagers have, at some stage in their lives, experienced cyberbullying (NCH, 2002; NCH, 2005). Smith et al. (2006) in a sample of 11- to 16-year olds (n=92) in 14 London schools found that, during the previous two months, 29% of participants had been cyberbullied, and 14% had cyberbullied others. Phone call and text message bullying were the most common forms of CB reported. Smith and colleagues developed this work further in a study in Sweden, in which it was found that 12% of participants (n=360) were cybervictims, while 10% had cyberbullied others (Slonje &

Smith, 2008). Elsewhere, Li (2007) reported that 25% of a sample of Canadian grade 7 students (n=177) had been cyberbullied, and that 15% had cyberbullied others. Beran and Li (2005), with a larger sample (n=432), reported an increase in the level of CB identified in their earlier work, with 35% of 12- to 14-year olds indicating that they had been cyberbullied 'once or twice', and 23% 'a few times or more'. A further 22% reported that they had cyberbullied others on at least one occasion. Another small study conducted in the US reported that 49% of 13- to 18-year olds (n=84) in two high schools had been victims of cyberbullying and 21% had cyberbullied others (Raskauskas & Stoltz, 2007).

Some notable themes have been identified in the CB literature (Smith & Slonje, 2010). Firstly, it has been suggested that, as cyberbullies are not usually in the physical presence of their victim, they often retain a high degree of anonymity. Secondly, the feasibility of communication by means of electronic devices means that many more people may be exposed to CB than to TB. Lastly, and perhaps most importantly, CB is becoming increasingly prevalent in view of the wide and increasing availability of electronic forms of communication.

The principal aim of the study described in this paper was to explore four specific forms of CB (text message; email; phone call; and picture/video clip) in a sample of school-going adolescents in Ireland. The specific objectives of the study were: (1) to assess the extent, nature and duration of CB; (2) to explore relationships between CB and background variables; and (3) to examine differences associated with age and gender.

METHOD

Participants

A sample of 122 students was recruited from two mixed-gender secondary schools in the south of Ireland. The sample included males and females in two age groups (12- to 14-year olds; 15- to 18-year olds). The younger group (mean age=13.08; SD=0.76) were recruited from one first year and one second year class in each school and included 28 boys and 36 girls. The older age group (mean age=16.62; SD=0.81) included 23 boys and 35 girls, all of whom were in one fifth year and one sixth year class in each of the schools.

Questionnaire Data

The *Cyberbullying Questionnaire (CBQ)*, developed by Smith et al. (2006), was adapted. Although newly developed, the *CBQ* is based, in part, on the *Revised Bully/Victim Questionnaire* (Olweus, 1996), which has well established psychometric properties. Validity, test-retest reliability, and internal consistency have been examined in large representative samples of secondary school students (N=5,000) in the US, Norway, and the UK (Olweus, 2002). We adapted the questionnaire in several ways. Firstly, the period to which participants were asked to refer was increased from two to six months to bring it more in line with similar studies (Li, 2007; Raskauskas & Stoltz, 2007; Ybarra & Mitchell, 2004). Secondly, the language was amended for use with Irish students and additional background questions were included (see below). Following a pilot study, some further minor changes were made to the instructions, layout, and structure. The final version consists of 80 multiple-choice and open-ended questions in two main sections, and takes approximately 25 minutes to complete.

Background Information. The first section of the questionnaire is based on an expanded version of the original which comprised only six questions, two of which were not relevant to the present sample and were omitted. The additional 19 items, which sought demographic information and information on Internet/mobile phone exposure and usage, facilitated further examination of relationships between CB and several background variables, such as family circumstances, school grades, and time spent on the Internet/ mobile phone.

Cyberbullying Information. The second section related specifically to the extent and nature of CB. At the beginning of the section, participants were provided with information on, and definitions of, both bullying and cyberbullying. The original questionnaire sought information on seven categories of CB, which included bullying by text messages, picture/video clip, phone calls, emails, websites, chat-rooms, and instant messaging. The last three categories were omitted in the present study because Smith et al. (2006) reported very low rates of incidence for these, while Slonje and Smith (2008) recommended shortening the questionnaire to reduce the time required for completion. The latter point was considered particularly important in the context of the present study, which involved administration in a classroom setting under restricted time conditions.

Participants were asked general questions about the frequency of victimization in school and, more specifically, about the frequency of CB.

The remainder of the questionnaire was divided into four sections relating to: (a) text messages; (b) picture/video clips; (c) phone calls; and (d) email bullying. Participants were asked about the frequency of each type of bullying (inside and outside school); if they were aware of this type of bullying; how they felt it compared to TB; who the bully was; duration of bullying; who was told about the bullying; and views on banning mobile phones/Internet in schools. Responses were scored on a 5-point Likert scale, ranging from 0 ('I haven't been bullied') to 4 ('several times a week'). However, due to low overall levels of bullying, all positive responses were collapsed into a single 'has been bullied' category for most analyses.

In line with Smith's recommendations, an 'impact factor' was calculated to identify the perceived impact of each type of CB on its victim when compared to TB, by attributing values to the perceived severity of each type of CB compared to TB (-1 = less of an effect; 0 = same effect; +1 = more of an effect). For each type of CB, the values given by participants were summed and divided by the total number of participants (excluding 'don't know' responses). This yielded an impact factor for each type of CB, ranging from +1 to -1. A positive impact factor suggests that the specific type of CB is perceived to have more of an effect than TB; the opposite is true if the impact factor is negative. An 'awareness factor' was calculated in the same way to indicate the likelihood of adults noticing CB when compared to TB (-1 = less awareness; 0 = same awareness; +1 = more awareness). A positive awareness factor suggests that the specific type of CB is perceived to be more likely to be noticed by an adult than TB, whereas a negative score suggests a lower likelihood.

Procedure

Both school principals provided their written consent for the study to proceed. Consent was also obtained from all parents, who were provided with an Information Sheet and a CB Information Booklet based on a similar resource devised by Smith et al. (2006). Participants provided consent in the form of a show of hands in the presence of a teacher. The researcher pointed out on several occasions that involvement in the study was entirely voluntary and confidential, and that participants could withdraw and/or withdraw their data at any time without penalty. Questionnaires were administered by the first author in the classroom during a single class period. Before beginning, participants were informed about the broad purpose of the research, what was required of them, and how the findings would be reported (i.e., in group

rather than individual format). The front page of the questionnaire defined CB and TB and provided information on questionnaire completion. Upon completion, participants were debriefed and provided with a student version of the CB Information Booklet, similar to that provided to parents.

RESULTS

Background Information

Most participants (61%) were living in rural areas and their parents (77%) were married. The great majority (88%) had access to the Internet and two-thirds spent more than a few hours a week using it, typically at school (63%) or at home (58%), although mostly outside the bedroom. Some of the more common types of online activities included 'instant messaging' (43%), 'sending and receiving emails' (37%), and accessing the 'Bebo' website (25%) (an online social network, similar to Facebook). Almost three-quarters of participants (71%) indicated that their parents did not try to control their use of the Internet. Over 90% owned a mobile phone; approximately the same percentage (90%) reported that their mobile phone use was 'uncontrolled'. Fifty-eight per cent sent over five text messages a day (on average); almost half (47%) spent a few hours a week, or longer, making mobile phone calls.

Analyses

Traditional Bullying. Approximately 1 in 5 participants (21%) reported that they had been victims of traditional bullying at school during the preceding six months, more than half (54%) of whom indicated that this had occurred only once or twice. A further 12 stated that this bullying had occurred more frequently.

Awareness and Incidence of Cyberbullying. Proportionately more participants had heard of bullying by means of text messages (31%) and phone calls (25%) than by either picture/video clip (17%) or email (12%).

The reported incidence of cybervictimization and cyberbullying (the number of respondents who had been subjected to or had engaged in any of the four types of CB on at least one occasion) was 17% and 9% respectively. The most common form of bullying was by means of phone calls, both inside and outside school. Phone calls inside school and text messages outside school were used most often to bully others (Table 1).

Table 1
Number of cybervictimization and cyberbullying incidents across the four types of CB

Type of CB	Inside school		Outside school		Total	
	Victim	Bully	Victim	Bully	Victim	Bully
Phone call	10	5	15	9	25	14
Text	4	4	6	10	10	14
Picture/video	6	3	5	3	11	6
Email	5	2	4	2	9	4
Total	25	14	30	24	55	38

Perceived Impact of Cyberbullying. Participants were asked to assess the perceived impact of each type of CB compared to TB, as well as the likelihood of adults noticing both. All forms of CB, other than email, were regarded by participants as worse than TB, particularly picture/video clip and phone call bullying. All types of CB were perceived to be less likely to be noticed by an adult than TB (Table 2).

Table 2
Perceived impact (impact factor) and adult awareness (adult awareness factor) of CB

Type of CB	Impact factor	Adult awareness factor
Text	0.07	-0.63
Picture/video	0.22	-0.37
Phone call	0.12	-0.06
Email	-0.2	-0.58

-1 = less effect/likelihood of being noticed by an adult than TB, 0 = same effect/likelihood and +1 = more effect/likelihood. Positive value = more effect than TB/more likely to be noticed by an adult; negative value = less effect than TB/ less likelihood of being noticed by an adult.

Open-ended questions provided participants with an opportunity to support and amplify their responses. Respondents who felt that CB had less impact than TB most commonly cited the absence of face-to-face confrontation as a key factor. One pupil commented: 'it's not face-to-face and [is] less intimidating'. There was a general consensus among those who felt that CB had the same effect as TB that bullying is hurtful regardless of how it occurs, as illustrated by the following comment: 'Bullying can damage your self-esteem no matter what form it is'. In relation to those who reported

that CB had more of an effect than TB, two primary reasons emerged. Firstly, there was the perceived difficulty of avoiding CB as indicated by the following response: 'Because it would be like you couldn't escape it, even when you're at home'. Secondly, the potentially large audience who may witness the victimization was a recurring source of concern as illustrated by the following: 'the pictures etc can be spread easily and quickly.'

Responses to the open-ended questions confirmed that text message and email bullying were typically perceived by participants to have a much lower likelihood of being noticed by an adult than TB. For example, many participants alluded to the minimal involvement of adults as illustrated by the following comments: 'Adults do not usually look at a child's phone'; 'They (adults) don't know your email password.' By contrast, phone call bullying was perceived to be similar to TB in terms of the extent to which it would be noticed by an adult. The reasons for this are unclear, although one respondent commented: 'If it happens constantly, then they (i.e., adults) may become suspicious.'

Who were the Cyberbullies? More than one-quarter of cybervictims were unaware of the class/year, gender, or number of people who cyberbullied them. Victims were most frequently bullied by a single female or a small number of females, from a different class, but the same year (as the victim), and were bullied least often by several large groups of bullies, comprising both sexes, from a lower year (Table 3).

Table 3
Cybervictims' description of the cyberbullies

Class/year	n=30	Gender	n=34	Number of bullies	n=27
Unknown	8	Unknown	10	2-3 students	8
Different class/same year	7	Mainly 1 girl	8	Unknown	7
Same class	5	Several girls	6	1 student	7
Higher year	5	Mainly 1 boy	5	4-9 students	3
Different years	2	Several boys	3	More than 9 students	1
Different school	2	Boys & girls	2	Several students/group	1
Lower year	1				

n = number of responses given by cybervictims.

Duration of Cyberbullying and Seeking Help. The duration of CB and subsequent help-seeking behaviour were assessed by examining all four types of CB together. Most of the respondents indicated that the CB was short-term, lasting only one to two weeks. However, four reported that it had gone

on for a period of six months up to several years (Table 4). Cybervictims confided most frequently in friends and parents. Six respondents indicated that they had told nobody (Table 5).

Views on Banning Mobile Phones and Private Internet Use in School. Only a minority of participants reported that banning mobile phones in school would help to avoid bullying by means of text messages (5%), picture/video clips (8%) or phone calls (7%). Marginally more (14%) thought that banning private Internet use in school, would help to avoid email bullying. More than half, in most cases, felt that banning mobile phones and Internet use in school would not be helpful, as students would engage in CB either in private or after school; for example, 60% felt that their peers would bully by means of phone calls after school.

Table 4
Duration of cyberbullying experienced by cybervictims

Duration of CB	Number of cybervictims (n=22)
1 to 2 weeks	16
About a month	2
About 6 months	2
About a year	0
Several years	2

Table 5
Individuals in whom cybervictims confided

Individuals in whom cybervictims confided	Number of cybervictims (n=25)
Friends	8
Parents	7
Nobody	6
Class Teacher	3
Another adult at school	1

Correlates of Bullying. A series of 2x2 chi-square tests was undertaken to identify the extent of any relationships between a number of background variables (e.g., family circumstances, time spent using the Internet/mobile phone) and both cybervictimization and cyberbullying. However, the low prevalence rates of both precluded any meaningful analyses with respect to the four specific types of CB. Overall, no significant relationships were found ($p>.05$).

In further chi-square tests, no significant associations ($p > .05$) were found between age and sex and any aspect of CB, including overall cybervictim and cyberbullying rates, any kind of cybervictimization in school (or outside school), or any type of cyberbullying in school (or outside school). The only significant association to emerge was that proportionately more younger (30%) than older (10%) participants were likely to experience bullying generally ($\chi^2 = 5.85$; $df = 1$; $p = .016$).

Attitudes Toward CB: Further Responses to Open-ended Questions. A more detailed inspection of the responses to the open-ended questions revealed two recurring themes. The first related to ways in which participants felt that CB might be prevented; the other related to what appeared to be a dismissive or casual attitude toward CB. Both themes were identified across each of the four categories.

Responses were more positive than negative about the prospects of preventing CB. For instance, one student (regarding text message bullying) stated: 'Don't give your number to someone you don't trust or know'. Another suggested encouraging 'people to speak more freely about it'. However, some of the responses pointed toward an underlying sense of helplessness in that several participants, both victims and non-victims, felt that the situation could not be improved. For example, one student remarked: 'I feel there is nothing can be done to prevent this', while others reported that, no matter what is done to prevent CB, 'it's going to happen anyway.'

The responses of several participants to the open-ended questions suggested quite a casual attitude toward CB. For example, one participant commented: 'Some people can't take a f***** joke - get a life!' Other respondents negated the seriousness of the matter with comments such as 'it will go away - it is a fad' and 'I don't think it is a big deal personally'. Another student observed that 'bullying is a natural cycle and cyberbullying is just another way to do this cycle'.

CONCLUSION

The prevalence rates of both cyberbullying (9%) and cybervictimization (17%) in this study are generally lower than those found in studies conducted elsewhere, which have typically reported rates of 25 to 35% for victimization and 14 to 22% for bullying others (Hinduja & Patchin, 2007; Li, 2006; Li, 2007; NCH, 2002; NCH, 2005; Patchin & Hinduja, 2006; Raskauskas &

Stoltz, 2007; Smith et al., 2006). However, it is difficult to make comparisons across studies due to definitional and methodological variations.

There are a number of factors, however, which may help to explain our findings. Firstly, it is likely that the overall rates would have been higher had more categories of cyberbullying been investigated, particularly given that Slonje and Smith (2008), who also examined only four categories, reported similarly low incidences of cyberbullying. Secondly, urban/rural differences may have played a role; much of the research to date has been conducted in highly urban regions, whereas the majority of participants in our study were living in rural locations. A third possible factor may relate to cultural differences: lower incidences of traditional bullying have been found generally in Ireland (O'Moore, Kirkham, & Smith, 1997) than in other countries such as England (Whitney & Smith, 1993) and Australia (Rigby, 1996).

One of the key findings from our study was the more common use of phone call and text message bullying, also a finding of earlier studies (NCH, 2005; Raskauskas & Stoltz, 2007; Smith et al. 2006). By contrast, higher incidences of chat-room and computer text message bullying have been found in Internet-based studies (Burgess-Proctor, Patchin, & Hinduja, 2009; Hinduja & Patchin, 2007; Patchin & Hinduja, 2006). This is most likely due to the already high levels of computer usage (and hence greater potential for cyberbullying) among participants in Internet-based research.

Another important finding of our study was that all categories of CB other than email were thought to impact more negatively on the victim than TB. Furthermore, and in line with research by Smith et al. (2006) and Slonje and Smith (2008), phone call bullying and, to a greater extent, bullying by means of picture/video clips, were viewed most negatively of all, primarily due to the potential breadth of audience and the difficulty of avoiding exposure to these kinds of bullying. The anonymity of the bully is also a potentially compounding factor, in the sense that this might be perceived as more hurtful than a face-to-face situation (Smith & Slonje, 2010).

In our study, one-quarter of victims did not confide in anybody, and although this is an appreciable proportion, it is lower than that reported in previous research, which identified between 28 and 58% of victims as remaining silent (Li, 2007; NCH, 2005; Slonje & Smith, 2008; Smith et al., 2006; Smith et al., 2008).

As the situation regarding CB is likely to deteriorate because of rapid developments in information and communications technology, appropriate early and preventive intervention is essential. While considerable work has

been undertaken to reduce and control traditional bullying behaviour in Irish schools (O'Moore, 1995), it may be necessary to incorporate some consideration of cyberbullying in future efforts. The most recent guidelines on anti-bullying policies set out by the Department of Education and Science (DES, n.d.) make reference to CB, but more is required. Awareness of CB should also be raised among students, parents, teachers, and the wider community and appropriate guidance provided on how best it might be managed (e.g., NCTE, n.d.; Willard, 2007). CB may also be more effectively managed. Future technological advances, as suggested by O'Brien (2008) with respect to mobile phones (e.g., blocking or controlling contact from specified numbers), may help in this task.

Currently, all post-primary schools in Ireland provide teaching in Social, Personal and Health Education (SPHE). This focuses on health, well-being, and personal development, while also endeavouring to provide pupils with the necessary skills to develop positive relationships. There may be merit in, among other things, including a module on CB in the junior cycle curriculum and its equivalent for senior students, which is currently under development (NCCA, n.d.).

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