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4 Cyberbullying

Does parental online supervision and youngsters' willingness to report to an adult reduce the risk?

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Introduction

Cyberbullying affects boys and girls of different ages all around the world, since communication among peers has changed, and so have the risks of online communication. Cyberbullying has been defined as 'an aggressive act or behavior that is carried out using electronic means by a group or an individual repeatedly and over time against a victim who cannot easily defend him or herself' (Smith et al., 2008, p. 376). Even if most researchers agree that cyberbullying can be considered as a new type of aggression, made possible by the increasing spread of the Internet and the new information and communication technologies (ICTs) among young people (Slonje, Smith, & Frisén, 2013), assessing the prevalence and nature of cyberbullying is complex, since there is still a lack of consensus regarding how cyberbullying should be defined and measured (Kowalski, Giumetti, Schroeder, & Lattanner, 2014; Olweus, 2013; Smith, del Barrio and Tokunaga, 2013; Tokunaga, 2010; Ybarra, Boyd, Korchmaros, & Oppenheim, 2012). The same applies when we look at possible causes of cyberbullying, better identified as 'risk and protective factors'.

By adopting the *ecological system theory*, based on Bronfenbrenner's ecological framework (Bronfenbrenner, 1979, 1986, 1994), it is possible to divide risk factors associated with bullying and cyberbullying according to one of four levels: individual, interpersonal, social, or community and cultural. The underlying reasoning is that there is no one single cause of cyberbullying; risk factors can have a role and influence and this varies from individual to individual, and from context to context (Baldry, Farrington, & Sorrentino, 2015). Risk factors for cyberbullying therefore can be related to the individual level including age, gender, youngsters' internet activities, empathy, self-esteem, and to the interpersonal level including the relationship with the parents and parental roles in monitoring, moderating and mediating of internet communication of their children (Mesch, 2009).

The aim of the study presented in this chapter is to investigate the relationship between parental online supervision and cyberbullying, controlling for other personal variables such as gender, amount of time using the Internet and willingness to report cyberbullying to an adult.

The studies reviewed use different definitional criteria, different measures of parental support, and so in Table 4.1 we provide a summary of findings, which overall are mixed also because different constructs were used.

Ybarra and Mitchell (2004) measured the caregiver-child relationship (emotional closeness, general monitoring and discipline) and parents' restriction of their children's internet use. With regard to the caregiver-child relationship, they found that cyberbullies and cyberbully/victims, compared to students not involved in cyberbullying, reported having poorer emotional bonds with their parents and lower levels of parental general monitoring. The authors also found that about 30% of parents of students involved as cyberbullies and cyberbully/victims restricted their children's internet use by blocking software on their home computer, compared to 22.1% of parents of students not involved.

Dehue et al. (2008) administered two questionnaires (one for students and one for parents) to 1,211 Dutch students and their parents measuring students' involvement in cyberbullying and cybervictimization. Parents were asked about the presence of house rules about the Internet, and the prevalence and communication about their children's experience of being cyberbullies or cybervictimized. The results showed that about 60% of parents reporting having set clear rules about the frequency with which their children could use the Internet and 80% of them had also established rules about what activities were allowed on the Internet. With regard to students' communication with their parents about their experience of being a cyberbully or a cybervictim, there was a discrepancy between the prevalence rates of cyberbullying and cybervictimization reported by parents and students. Only 4.8% of parents reported that their children were involved as cyberbullies, but 17.3% of students reported being a cyberbully, indicating little knowledge by parents about what is going on.

Juvonen and Gross (2008) surveyed online 1,254 US students aged 12–17 years about their experiences of cybervictimization and their willingness to report these incidents to adults. The results showed that 90% of youth did not report any cybervictimization incidents to adults. In particular, according to students, the reasons for not reporting were tied to the need to deal with cybervictimization by themselves (50%) and to the fear of parents' reactions, that is parents might restrict or not allow them to use the Internet (31%). Slonje and Smith (2008) administered to 360 Swedish students aged 12–20 years a questionnaire about students' experience of school bullying and victimization and of cyberbullying and cybervictimization and students' propensity to report cyberbullying and cybervictimization. The results highlighted that 50% of cybervictims did not report to anyone; none of the cybervictims reported their experience to teachers, 35.7% reported being a cybervictim to a friend, 8.9% to parents and 5.4% to someone else. The study also highlighted that, according to participants, the different cybervictimization types had different probabilities of being reported to adults; it seems that only picture/video clip cybervictimization was likely to come to the notice of adults.

Smith et al. (2008) surveyed 533 UK students aged 7–11 years about their willingness to tell anyone about school bullying and victimization and

Table 4.1 Summary of key findings on the role of parents and cyberbullying

Study	Sample N	Age	Method/parental measures	Main results of parental role		
Ybarra & Mitchell (2004) USA	1,501	10–17 years	Telephone survey; At least once in the past 12 months; Parent-child relationship; Parents' internet control	Compared to subjects not involved, cyberbullies and cyberbully/victims have poor emotional bonds with their parents	Compared to subjects not involved, cyberbullies and cyberbully/victims reported low levels of parental monitoring	Only about 30% of parents of students involved as cyberbullies and cyberbully/victims used blocking software, compared to 22.1% of parents of students not involved
Dehue, Bolman, & Völlink (2008) NL	1,211	M=12.7 (sd=0.73)	Self-reported questionnaire; At least once in last semester; House rules about the Internet and text messaging; Communication on bullying and being bullied	60% of parents reported having set rules about the frequency with which children were allowed to use the Internet, 80% of them also reported having set clear rules about allowed activities on the Internet	With respect to communication on cyberbullying and cybervictimization, only 4.8% of parents reported their child was a cyberbully, while 17.3% of students reported being involved as cyberbullies	11.8% of parents reported their child was a cybervictim, while 22.9% of students reported they have experienced cybervictimization
Juvonen & Gross (2008) USA	1,454	12–17 years	Online survey; Reporting cyberbullying to adults	90% of students reported not telling adults about cybervictimization	The most common reason for not telling an adult was that participants believe they "need to learn to deal with it" themselves (50%)	Almost one third of the sample (31%) reported that the reason they do not tell is because they are concerned that their parents might find out and restrict their internet access

Table 4.1 Continued

Study	Sample		Method/parental measures	Main results of parental role
	N	Age		
Slonje & Smith (2008) Sweden	360	12–20 years	Self-reported questionnaire At least once or twice in the past couple of months Reporting cyberbullying and cybervictimization to adults	50% of cybervictims reported not telling anyone, 35.7% told a friend, 8.9% told a parent/guardian and 5.4% someone else. No cybervictim reported his/her experience of cybervictimization to teachers.	The different types of cybervictimization have different chances of being reported to adults. In particular, according to most participants only picture/video clip cybervictimization was as likely to be noticed by adults as school victimization.
Smith et al. (2008) UK	533	7–11 years	Self-reported questionnaire At least once in the past year Reporting cyberbullying and cybervictimization to anyone	Participants indicated the best ways to stop cybervictimization: blocking messages/identities (74.9%), telling a parent and or a teacher) (63.3%), changing email address/phone number (56.7%), keeping a record of offensive emails/texts (46.5%), ignoring it (41.3%), reporting to police (38.5%), contact service provider (31.1%), asking them to stop (21.4%), fighting back (19.6%)	70.2% of school victims told someone about his/her victimization experience, while only 58.6% of cybervictims reported cybervictimization incidents to someone
Mesch (2009) USA	935	12–17 years	Self-reported survey Parental restrictive and evaluative mediation	Parental monitoring Web sites visited by their children (restrictive mediation), decrease youth's risk of being involved in cyberbullying as cybervictims	The presence of rules on sites that the children are allowed to visit (evaluative mediation) decreases youth's risk of been involved in cyberbullying as cybervictims	Parental monitoring and rules on internet allowed activities decrease youngsters' risk of being involved in cyberbullying
Wang, Iannotti, & Nansel (2009) USA	7,182	6–10 grades	Self-reported questionnaire Only once or twice in the previous two months Parental support (higher or lower)	Higher levels of parental support were negatively associated with involvement in cyberbullying as cyberbullies, cybervictims and cyberbully/victims	There is an inverse relationship between levels of parental support and involvement in cyberbullying as a cyberbully
Huang & Chou (2010) Taiwan	545	Junior high school	Anonymous survey (online and printed) Reasons for not reporting cyberbullying and cybervictimization to adults	Among bystanders of cyberbullying, only 11.2% told parents and 3.7% told teachers. According to bystanders of cyberbullying reasons for not reporting were: being afraid of getting into trouble; feeling a sense of uselessness in looking to adults for assistance.	Cybervictims were less likely to turn to adults, including parents (11.6%) and teachers (5.9%)	Many more cybervictims than bystanders of cyberbullying reported cyberbullying incidents 33.4% of cybervictims reported their experience to peers

continued

Table 4.1 Continued

Study	Sample		Method/parental measures	Main results of parental role
	N	*Age*		
Holfeld & Grabe (2012) USA	665	7–8 grades	Self-reported survey. At least once or twice in the past 30 days. Reporting cybervictimization	64% of cybervictims told their experience of online victimization to their peers, 50% to parents and 8% to teachers. In 37% of cases, participants told more than one person their experience of cybervictimization	Regardless of to whom they report, in 53% of cases cybervictimization ended when victims reported the incident
Floros, Siomos, Fisoun, Dafouli, & Geroukalis (2013) Greece	2,017	12–19 years	Cross-sectional study. At least once during the last school year. Parental bonding. Internet use, experience and safety procedures	Secure online practice at home is a protective factor. There is a statistically significant difference on the parental security measures when comparing those adolescents who were cybervictimized to those who were not cybervictimized.	Lower levels of perceived care, higher levels of perceived overprotection and higher levels of pathological internet use were linked both to being involved as cyberbully and cybervictim. Parental supervision apparently did not prevent youngsters' involvement as cyberbullies

cyberbullying and cybervictimization. The results showed a statistically significant difference in students' reporting of school victimization and cybervictimization. In particular, school victims (70.2%) were more likely than cybervictims (58.6%) to tell someone about their victimization experiences.

Mesch (2009) surveyed 935 US students 12–17 years and their parents in order to assess students' likelihood of cybervictimization and parental mediation strategies (restrictive or evaluative). With regard to parents' mediation strategies, the results showed that only parental monitoring of the Web sites visited by their children (restrictive parental mediation) was a protective factor, that is parental monitoring decreased a youth's risk of cybervictimization. Also, the evaluative mediation strategy of setting clear rules on children's allowed online activities decreased students' experience of cybervictimization.

Wang et al. (2009) administered to 7,182 US 6–10 grade students a questionnaire about students' experience of school bullying and victimization and cyberbullying and cybervictimization and students' perceived parental support. The results showed that high levels of parental control were associated with low cyberbullying and low cybervictimization.

In another survey conducted by Huang and Chou (2010) with 545 Taiwan junior high school students about cyberbullying and cybervictimization and reasons for not reporting cyberbullying and cybervictimization to adults, it emerged that cybervictims reported their experience to peers/classmates in 33.4% of cases, to siblings in 16.1% of cases, while only 11.6% and 5.9% of students reported cybervictimization respectively to parents and teachers.

Holfeld and Grabe (2012) administered to 665 7–8 grade US students a questionnaire about their experience of cyberbullying and cybervictimization, investigating also students' willingness to report cybervictimization. About 60% of students reported cybervictimization. In particular, of these, 64% reported their experience of cybervictimization to peers, 50% to parents, 20% to siblings, 8% to teachers, 5% to cousins and 1% to grandparents. The most important result from this research underlines the importance of reporting cybervictimization, because, when cybervictims decided to report their experience, in 53% of cases the cybervictimization stopped.

Floros et al. (2013) conducted a cross-sectional study involving the entire high school population ($N=2,017$) of the island of Kos and all of their parents. The study aimed to investigate the relationship between cyberbullying and cybervictimization and parental bonding and parental monitoring of their children's internet use and online security rules. With regard to secure online practices at home, the results showed a significant difference between cybervictimized and not cybervictimized adolescents, that is the presence of secure online practices was a protective factor. The same was not found with regard to cyberbullying, so parental rules and monitoring seem to not prevent students' involvement as cyberbullies.

In our study we looked specifically at the role of parents in online monitoring (informing the child about online risk, monitoring the child's online activities, accessing the child's social network accounts) in relation to cyberbullying and

cybervictimization. We hypothesized that greater parental involvement and awareness would be associated with lower cyberbullying and lower cybervictimization, controlling for individual level variables (gender, numbers of hours spent online and willingness to talk to an adult about their cyber experience).

Method

Participants

The total sample taking part in the study consisted of 2,419 Italian students recruited from different schools in different locations in the northern part of Italy. Of all participants 45.7% were males and 54.3% were females. The average age of the students who filled in the questionnaires was 15.4 years (*SD*=2.06) and most of them (95.2%) were Italian. Almost all students (99%) taking part in the study reported using the Internet at home, and 82.9% of them reported having at least one profile on a social network.

Measures

Participants were handed a questionnaire packet that included the Italian version of the original Olweus Bully/Victim Questionnaire (Baldry & Farrington, 1999; Menesini et al., 1997; Olweus, 1993) and the translation of the Students' Needs Assessment Survey (Willard, 2007). The questionnaire also included socio-demographic measures, such as gender, age, country of birth, internet availability at home, and a set of questions on parental monitoring of the online activities.

At the beginning of the questionnaire, the school bullying and cyberbullying definitions were provided. For the purpose of the present study only measures of types and frequency of bullying were taken into consideration. Students' involvement in school bullying as a bully and/or a victim was measured on five-point scales ranging from: 'never', 'only once or twice', 'two or three times a month', 'once a week', to 'several times a week', in the previous six months.

To measure cyberbullying we used the translated version of the Students' Needs Assessment Survey (Willard, 2007). For the purposes of the present study only measures of types and frequency of cyberbullying were taken into consideration. Students' involvement in cyberbullying was measured using a set of questions about perpetrating different online actions (five items) or being victimized (five items). Students were asked whether they had experienced (as a bully and/or as a victim) in the previous six months the following cyberbullying types: flaming,[1] denigration, impersonation, outing and exclusion. Each cyberbullying type was measured on a 3-point scale: 'no' (scored 0), 'yes, 1 to 4 times' (1) and 'yes, 5 or more times' (scored 2).

To measure students' willingness to report cyberbullying and cybervictimization incidents to parents or other significant adults (teachers), we created a scale by adding together five (5) items measured on four-point scales: 'very unlikely'

(scored 0), 'somewhat unlikely' (scored 1), 'somewhat likely' (scored 2), 'very likely' (scored 3). The score, ranging from 0 to 15, was reliable with a Cronbach's alpha=0.83. Example items are: 'I would report online bullying to an adult if it happened to me', and 'I would tell your parents or a school staff member that a student is cybervictimized'.

Parental online supervision was measured with three different items that were used separately. Parents' education about internet use was assessed using a dichotomous variable ('no'=0) ('yes'=1), while for parental control of children's online activities and parental social network supervision respondents could answer on a three-point scale ranging from 'never' (scored 0) to 'frequently' (scored 2).

Procedure

Questionnaires were administered in the school during lessons by the first two authors after a custodial adult's consent was ascertained by the school principal. Participants were handed the paper and pencil questionnaire in their classroom. Before completion, the meaning of the terms school bullying and cyberbullying were explained to students. Students were assured about the anonymity of the study and that their answers were collected and analysed at an aggregate level so their identity was protected and they could provide their answers freely according to what was actually going on in their lives.

Data analysis

To measure overall involvement in bullying and cyberbullying, descriptive statistics were calculated to measure the prevalence of bullying and cyberbullying and gender differences (see Table 4.2). To establish the relative impact on cyberbullying and cybervictimization of parents' role in monitoring and educating youngsters in safe internet use and parents' role in supervising youngsters' social network profile(s) and students' willingness to report cyberbullying and cybervictimization to adults, two hierarchical regression analyses were conducted controlling for students' age and gender.

Results

Overall frequency data

To gain a basic understanding of prevalence of bullying and cyberbullying overall frequencies were calculated. Analyses showed that 59% of the students experienced at least one school victimization episode in the previous six months, while 26.2% reported being cybervictims. About 61% of the students were school bullies and almost 24% had bullied others in cyberspace through the new technologies (see Figure 4.1).

The most common form of school victimization was verbal bullying (45.6%), followed by indirect bullying (33.4%) and physical bullying (23.3%). Likewise

Table 4.2 Summary statistics of the study's variables

Measures and items	
Gender	45.7% males
Age (12–20)	Mean=15.4, sd=2.06
Nationality	95.2% Italian
Internet users	99% yes
Number of hours a day	57.6% at least 2–4 hrs
Social network profile	82.9% yes
Parental supervision of internet use	39.5% never
Parental supervision of children's social network profile	57.6% never
Parental education on safe internet use	42.9% no
School bullying (score 0–28)	Mean=2.50, sd=3.76
School victimization (score 0–28)	Mean=2.43, sd=3.53
Cyberbullying (score 0–5)	Mean=0.38, sd=0.83
Cybervictimization (score 0–5)	Mean=0.39, sd=0.76
Willingness to report cyberbullying/cybervictimization to adult (score 0–15)	Mean=8.77, sd=3.95

Note
Internet hours were assessed in four categories: 0–1 hr/day=1, 2–4 hrs/day=2, 5–8 hrs/day=3, more than 9 hrs=4, N=2,419.
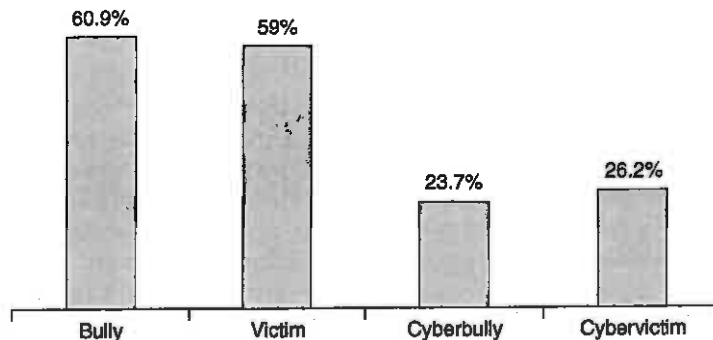

Figure 4.1 Prevalence of school and cyberbullying and victimization.

the most common type of school bullying was verbal bullying (48.4%), followed by indirect bullying (40.7%) and physical bullying (17.4%). With respect to students' involvement in cyberbullying, almost 13% of all respondents reported having sent nasty, cruel or mean messages to someone once or twice during the past six months, while the most common types of cybervictimization were denigration (11%), followed by outing (9.6%) taking place at least once or twice.

Although school bullying and victimization appear to be more prevalent than cyberbullying and cybervictimization, we believe it could be interesting to highlight that a significant number of the students participating in the study reported online web materials that denigrate and/or humiliate a school staff member

(33.7%), that threaten or suggest violence (26.5%) or suicide (6.1%), and harmful materials posted by homophobic and/or racist minorities (35%) or by gangs online (13.4%).

Parents' role in cyberbullying

More than half of students' parents had educated their children on how to behave correctly online, but about 40% of parents had never looked at or monitored their children's online activities and only 42.4% of parents had access and control of students' social network profile(s).

The data seem to suggest that students are not inclined to share their online experiences with their parents. In fact 23.8% of them would not turn to parents in order to report their cybervictimization experiences, and only 33.6% would tell them about another student's experience of cybervictimization.

Gender differences and involvement in school and cyberbullying

Gender differences in involvement in school and cyberbullying were investigated with a 2×2 cross-sectional cross tabulation (Table 4.3). The results showed that 67.8% and 61.2% of male students reported being involved in school bullying as bullies or victims respectively. The comparison using the chi-square test highlighted the existence of significant gender differences in students' involvement in school bullying; males were more likely than females to be involved in school bullying as bullies ($\chi^2_{(1)}=39.001$, $p<0.001$). Also for school victimization males were more involved than their female counterparts ($\chi^2_{(1)}=4.024$ $p<0.05$).

With regard to cyberbullying and cybervictimization, 29.8% of males and 18.7% of females admitted that they were cyberbullies, while 25% of males and 27.3% of females stated that they had been cybervictimized. The comparison using the chi-square test highlighted the existence of significant gender differences in students' involvement in cyberbullying; males were more likely to be involved as cyberbullies than females ($\chi^2_{(1)}=40.242$, $p<0.001$), but no significant gender differences were found with regard to cybervictimization.

Table 4.3 Gender differences between school bullying and cyberbullying

	Odds ratio	Male (%)	Female (%)
School bully	1.72***	67.8	55.1
School victim	1.18*	61.2	57.1
Cyberbully	1.84***	29.8	18.7
Cybervictim	0.89	25.0	27.3

Note
* $p<0.05$;
** $p<0.01$;
*** $p<0.001$.

Hierarchical regression

To establish the relative impact of parents' role in monitoring and educating youngsters in safe internet use, and students' willingness to report cyberbullying and cybervictimization in incidence to parents or other significant adults (over and above individual variables such as gender and hours spent online) on involvement in cyberbullying and cybervictimization, two hierarchical regression analyses were conducted.

First, simple correlations between different risk factors and cyberbullying and cybervictimization were calculated to analyse the relationships between variables (see Table 4.4). Interestingly, parental education on internet use, parental control of online activities and parental social network supervision were negatively related to cyberbullying (as expected) but positively related to cybervictimization. Cyberbullying and cybervictimization were quite highly correlated ($r=0.403$), as were school bullying and school victimization ($r=0.558$). School bullying and cyberbullying were quite highly correlated ($r=0.466$) but school victimization and cybervictimization were somewhat less strongly correlated ($r=0.297$).

All predictive factors that were significantly correlated with cyberbullying and cybervictimization were entered into the regressions. The same predictors were used for cyberbullying and cybervictimization. The models are based on the theoretical model adopted which refers to the ecological approach to the explanation of the occurrence and nature of cyberbullying and cybervictimization. This means taking into account a set of risk factors related to individual, to interpersonal and to social levels. In this study, as mentioned, we focused only on the individual and interpersonal, or, familial, level.

In the first step of the analysis, gender and number of hours spent online a day were entered in the model first, and were statistically significant: gender (being a boy), and hours spent online a day (meaning more hours). In the second step, parental education on internet use, parental control of their children's online activities and parental supervision of their children's social network profile(s) were entered. Only parental education on safe internet use was negatively associated with cyberbullying ($\beta=-0.05$, $t=1.97$, $p<0.05$), meaning that the less parents educate their children on safe internet use, the more they are involved as cyberbullies. In the third step of the model, willingness to report cyberbullying/cybervictimization incidents was entered indicating that cyberbullying is negatively associated with willingness to report cyberbullying/ cybervictimization incidents (see Table 4.5).

With regard to the prediction of cybervictimization, gender and number of hours spent online a day were entered in the model first and were statistically significant: gender (meaning being a girl), and hours spent online a day (meaning spending more hours on the Internet). In the second step, parental education on internet use, parental control of their children's online activities and parental supervision of their children's social network profile(s) were entered, significantly increasing the variance explained, though each risk factor reached only

Table 4.4 Correlations between cyberbullying and cybervictimization and different parental supervision activities, willingness to report, gender and hours online

	1	2	3	4	5	6	7	8	9	10
1 Willingness to report CB/CV	—									
2 Gender (female)	0.245**	—								
3 Numbers of hours on internet	-0.104**	-0.072**	—							
4 Parental education on internet use	0.242**	0.197**	-0.061**	—						
5 Parental control of online activities	0.242**	0.096**	-0.059**	0.301**	—					
6 Parental social network supervision	0.189**	0.076**	0.018	0.237**	0.466**	—				
7 Cybervictimization	-0.051*	0.036	0.109**	0.013	0.062**	0.070**	—			
8 Cyberbullying	-0.215**	-0.133**	0.139**	-0.090**	-0.072**	-0.052*	0.403**	—		
9 School victimization	-0.103**	-0.083**	0.102**	-0.046*	-0.009	0.003	0.297**	0.293**	—	
10 School bullying	-0.264**	-0.208**	0.158**	-0.121**	-0.119**	-0.071**	0.226**	0.466**	0.558**	—

Note
All variables are standardized;
* $p<0.05$;
** $p<0.01$;
*** $p<0.001$.

Table 4.5 Hierarchical regression for cyberbullying

	B	SE B	β
Step 1			
Gender	−0.25	(0.04)	−0.12***
Number of hours on internet	0.13	(0.02)	0.13***
Step 2			
Gender	−0.22	(0.04)	−0.11***
Number of hours on internet	0.13	(0.02)	0.13***
Parental education on internet use	−0.09	(0.05)	−0.05*
Parental control of online activities	−0.03	(0.02)	−0.03
Parental social network supervision	−0.02	(0.02)	−0.02
Step 3			
Gender	−0.15	(0.04)	−0.08***
Number of hours on internet	0.11	(0.02)	0.11***
Parental education on internet use	−0.04	(0.05)	−0.02
Parental control of online activities	−0.01	(0.02)	−0.005
Parental social network supervision	−0.01	(0.02)	−0.008
Willingness to report cyberbullying/cybervictimization	−0.18	(0.02)	−0.18***

Note
Total R^2=0.242; for step 1; ΔR^2=0.005 for step 2 ($p<0.05$); ΔR^2=0.027 for step 3 ($p<0.001$). All variables were standardized.

marginal significance ($p<0.10$). In the third step of the model, willingness to report cyberbullying/cybervictimization incidents was entered, indicating that willingness to report cyberbullying/cybervictimization incidents was negatively associated with cybervictimization. Parental control of online activities and parental social network supervision were positively related to cybervictimization (see Table 4.6).

Discussion

Cyberbullying and cybervictimization are complex problems affecting a significant proportion of children and young people from the time they start using electronic ways to communicate. While school bullying affects children in school or around the school, making teachers and principals among the first ones to take responsibility to address the problem and develop and implement efficient programmes (Ttofi & Farrington, 2011; Ttofi, Farrington, & Baldry, 2008), cyberbullying occurs beyond the school borders (Ybarra & Mitchell, 2004). Therefore parents or any adult in charge of a child or youngster have specific responsibility to protect them from being victimized online as well as to prevent them from committing any cyberbullying online.

Youngsters are digital natives, meaning that they grew up with this form of communication technology and have expertise about electronic devices. Being online and communicating with their peers and unknown people, being popular, sharing photos, videos, thoughts and aspects of life, are things that parents are

Table 4.6 Hierarchical regression for cybervictimization

	B	SE B	β
Step 1			
Gender	0.09	(0.04)	0.04*
Number of hours on internet	0.11	(0.02)	0.11***
Step 2			
Gender	0.08	(0.04)	0.04
Number of hours on internet	0.11	(0.02)	0.11***
Parental education on internet use	−0.03	(0.05)	−0.01
Parental control of online activities	0.05	(0.03)	0.05
Parental social network supervision	0.05	(0.02)	0.05
Step 3			
Gender	0.11	(0.05)	0.05*
Number of hours on internet	0.11	(0.02)	0.11***
Parental education on internet use	−0.005	(0.05)	−0.003
Parental control of online activities	0.06	(0.03)	0.06*
Parental social network supervision	0.05	(0.02)	0.05*
Willingness to report cyberbullying/cybervictimization	−0.08	(0.02)	−0.08***

Note
Total R^2=0.187; ΔR^2=0.006 for step 2 ($p<0.01$); ΔR^2=0.005 for step 3 ($p<0.001$). All variables were standardized.

not used to. Parents or custodial adults could underestimate the dangers hidden online. The risk online is not only with regard to the risk of grooming or online sexual abuse by an adult, but it is related to cyberbullying, which can be done in several ways, via text messages, via social networks, video, email or chat rooms. These devices are not used in the same way by most adults and they may not even know that they exist.

In this chapter we investigated the role of some parental supervision and protection strategies (Mesch, 2009) in relation to involvement in cyberbullying and cybervictimization among a sample of over 2,400 Italian students. Parental relationships and supervision can be or should be considered as protective factors. However, students, according to the review of the literature presented in this chapter, often say that they did not talk to a parent about online harassment or would not do so because of fear of the consequences such as shutting down the use of mobile devices or of the computer in their bedroom (Juvonen & Gross, 2008). Therefore, even if parental supervision is a potential protective factor, it may not be one in practice. In fact, from our study, looking at the correlation between parental supervision and cyberbullying and cybervictimization, mixed results emerged.

Cyberbullying was negatively associated with parental education on internet use, whereas cybervictimization was positively associated, and the same was true of parental control of online activities and parental supervision of the activities that the child does in social networks. It could be that poor parental supervision and monitoring is a risk factor for cyberbullying, so that the less

parents are aware, and the less they inform their children or control their activities, the more it is likely that their child will cyberbully. Alternatively, the more caring parents may have less antisocial children without there being any causal effect of parenting on child behaviour. Surprisingly, cybervictims report higher levels of supervision, control and monitoring. This could be due to the fact that, if a child is victimized, the parents will supervise their child more, inform him or her more in order to prevent re-victimization and protect him or her more. To test these hypotheses, longitudinal studies would be required.

The overall model presented takes into account two different possible levels of risk factors of online bullying, according to the ecological theoretical framework (Bronfenbrenner, 1979, 1986, 1994): the individual and the interpersonal level. At the individual level, gender also explained part of the variance because being a boy is a risk factor for cyberbullying. Hours spent online (the more you are connected, the more you are exposed to actions committed and suffered) and willingness to talk to someone when in trouble were also related. As several studies have shown (Slonje & Smith, 2008), more than half of all students would not talk to an adult about what they have seen or what is going on.

This study has the limitation of being a correlational study, making it difficult to identify any causal relationships between the variables under investigation. However, it has investigated the strength of relationships between individual and interpersonal risk factors and cyberbullying and cybervictimization, underlining once more that the prevention and reduction of cyber activities has to be global and address different levels of risk and needs of youngsters (Baldry et al., 2015). In light of the cyberbullying results, we conclude that cyberbullying may be reduced by increased parental education of children on internet use, parental control of online activities and parental supervision of social networks.

Note

1 A 'flame' is a deliberately hostile and provocative message sent from one user to the community or an individual. Flaming is done by sending violent and vulgar electronic messages, in order to arouse verbal conflicts within the network between two or more users.

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5 Violence risk

The actuarial illusion

David J. Cooke

In our infatuation with science and technology we overestimated our ability to manipulate and control the world around us. We forgot the power of the mind's irrational impulses. We were proud in our intellectual achievements, too confident in our abilities, too convinced that humans would stride across the world like gods.

(Peat, 2002, p. xiv)

Violence risk: the actuarial illusion

Describing the hubristic state of the natural sciences at the beginning of the twentieth century, Peat (2002) relates how Lord Kelvin – the then President of the Royal Society – indicated that everything in the physical world could be measured and understood in terms of the theories of Isaac Newton and James Clerk Maxwell. Peat (2002) described how quickly this scientific edifice dissolved from certainty to uncertainty: whether we embrace quantum theory, chaos theory or complexity theory, we know that our descriptions of physical systems, and our predictions, are inherently uncertain. Ironically, in its attempt to achieve respectability, psychology adopted Humean principles of causation and reductionism around the same period that the physical sciences were abandoning these approaches and adopting different conceptual approaches and different models (Richters, 1997). This is concerning. There can be little doubt that psychological systems are more complex, and less well understood, than the physical world: humans are active, reactive, interactive and adaptive organisms unlike the focus of the objects of Kelvin's physical world. No less an authority than Sir Isaac Newton made the position clear: "I can calculate the motions of the heavenly bodies, but not the madness of people."

While it would appear that the physical sciences have moved from a belief in certainty to embracing uncertainty – and the appreciation of the fundamental limits to knowing, predicting and managing the world around us – the science of violence risk assessment has sleep-walked towards a belief in certainty. This has led to somewhat hubristic statements about certain approaches; particularly those that have been termed actuarial risk assessment. Two examples will suffice; one applying to the actuarial approach, in general, the other to a specific test. "What