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How to cope and build online resilience?

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Summary

This report presents new findings on the coping strategies children use when bothered by something online, and whether or not they evaluate these as helpful. We focus on resilience - the ability to deal with negative experiences online or offline. We identify which children are most vulnerable in terms of harm experienced from online risks. We also identify which factors make some children more likely to use positive coping strategies that help them solve the problem and/or give them emotional support. Last, we consider resilience among children from a cross-country perspective.

Most children evaluate the coping strategies they use as helpful. Talking to somebody is the most popular employed strategy, regardless of the type of risk, especially among girls and younger children who tend to employ this communicative strategy more often. In the case of online bullying, 77% of the victims talked to someone after a bullying episode while 53% did so after seeing disturbing sexual content.

Combining two or three coping strategies, especially proactive ones, is also quite common. For instance, deleting unwelcome messages and blocking the sender are used most often when dealing with contact risks such as online bullying (41% delete unwelcome message and 46% block the sender) and sexting (38% delete unwelcome message and 40% block the sender). Furthermore, 82% of the children who reported deleting unwelcome sexual content and 78% of those who blocked the sender of bullying messages reported benefiting from proactive coping strategies such as these.

When confronted with online bullying or sexting, children higher in self-efficacy employ more proactive coping strategies; but girls, younger children and children with psychological problems are more likely to remain passive or fatalistic. Children with parents who use the internet sporadically tend to be more passive or fatalistic when confronted with sexual risks. We hypothesize that occasional internet users feel less confident in advising their children - so promoting internet use among adults remains of paramount importance.

We conclude that online and offline vulnerability are interrelated. The so-called double jeopardy effect means that children with more psychological problems suffer more from online as well as offline risks. They not only face more difficulties managing their emotions, conduct and social behaviour 'in the real world', but are also more likely 'in the online world' to feel bothered and more intensely upset.

Several recommendations are offered to help children improve their online resilience. These range from teaching children how to use (online) proactive coping strategies from an early age in both formal and informal contexts to helping children tackle their psychological problems and build self-confidence, paying special attention to more vulnerable children, i.e., those low on self-efficacy and high in psychological difficulties.

As regards parents, promoting internet access and use among them is crucial, as parents who are frequent internet users themselves feel more confident with the medium, and also feel more confident in guiding their children on the internet, promoting a positive attitude towards online safety and proactive coping strategies. Finally, teachers also have a role to play by stimulating their pupils to resort to proactive problem-solving strategies as well as teaching them how online tools and applications work. Sufficient digital skills among the teachers themselves are therefore essential.

As regards parental mediation, monitoring or mediating approaches seem to be more beneficial for children's online resilience than restrictive ones. Nevertheless, the results are not straightforward and varied depending on the type of risk. For instance, children of more restrictive parents tend to go offline more often when online bullies victimize them. Negative relationships between parental mediation and resilience could be explained by the less resilient teens seeking more social support, whereupon the parents decide to mediate their child's internet use more actively.

The challenge

Exposure to online risks does not necessarily result in harm. Previous results indicate that most children do not feel bothered and respond in a positive (proactive) way to risky online experiences (Livingstone *et al.*, 2011). However, some children are more sensitive and feel upset more intensely, and some experience more difficulties in adopting effective coping strategies.

Who are these vulnerable children who experience more harm, and how can we help them tackle online adversities? By looking at different types of online risks and how children deal with them, we should get a better insight into the mechanisms that can be enacted in order to foster the use of effective coping strategies for such vulnerable children. The EU Kids Online survey that was conducted in 25 European countries provides detailed evidence on four types of online risks: sexual images, online bullying, sexting, and meeting new contacts online. In total, over 25,000 European children were interviewed. This short report is based on a subsample, because only those children who reported that they felt bothered by an online risk answered the follow-up questions on coping strategies: i.e., 971 children for sexual content, 1,290 children for online bullying and 567 children for sexting; the fourth risk, meeting new contacts online, was not included in some steps of the analysis because of the small number of children being bothered by an offline meeting with a new online contact. For a few coping strategies, the children who reported that they used a coping strategy were also asked to evaluate how helpful it had been.

Coping strategies are understood as thoughts and behaviours to adapt to stressful or disturbing situations, in order to protect oneself from further psychological harm. We distinguish three categories:

Fatalistic/passive or passive coping

- Hope the problem will go away by itself
- Stop using the internet for a while

Communicative coping

- Talk to somebody about the problem

Proactive coping (problem-solving)

- Try to fix the problem
- Delete unwelcome messages (online)
- Block sender (online)

Resilience is the ability to deal with negative experiences online or offline. Resilient children are able to tackle adverse situations in a problem-focused way, and to transfer negative emotions into positive (or neutral) feelings. Risk and resilience go hand in hand, as resilience can only develop through exposure to risks or stressful events. Consequently, as children learn how to adequately cope with (online) adversities, they develop (online) resilience.

Risk-specific coping strategies

Which coping strategies did children use for each type of risks? Which did they evaluate as helpful? Did they use a combination of strategies?

Across all risks and across all children, **talking to somebody was the most popular coping strategy** (see Figure 1).

Children were more likely to delete messages and block the sender when confronted with contact risks, such as online bullying and sexting.

Depending on the type of risk, 18% (sexting) to 25% (sexual content) of the children stopped using the internet as a response to disturbing experiences online.

Overall, **the majority of children evaluated the strategy they used as helpful** (see Figure 2). For upsetting sexual content, deleting the message was rated as most helpful (82%). As to online bullying, blocking the sender was evaluated as the most helpful strategy (78%). For sexting, deleting messages and blocking the sender were rated as (almost) equally helpful (78% and 79% respectively).

Most children used a combination of strategies. Among those who felt bothered by sexual images and who applied at least one of the six coping strategies (*n* = 796), 63% used at least two of the six strategies displayed in Figure 1. This increased to 70% for sexting messages (*n* = 504), and 81% for victims of online bullying (*n* = 1,210). Most often, children combined two or three strategies.

Figure 1: Coping responses to online risks (% of those who had been bothered by the risk)

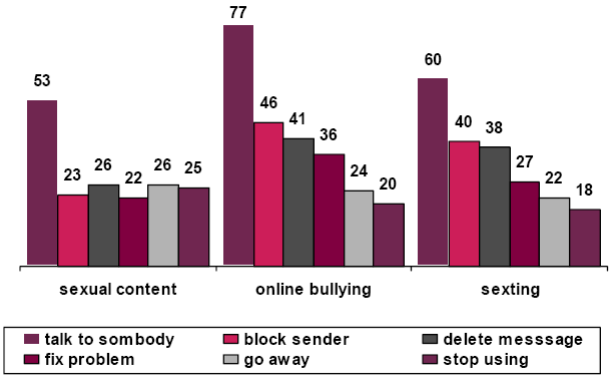
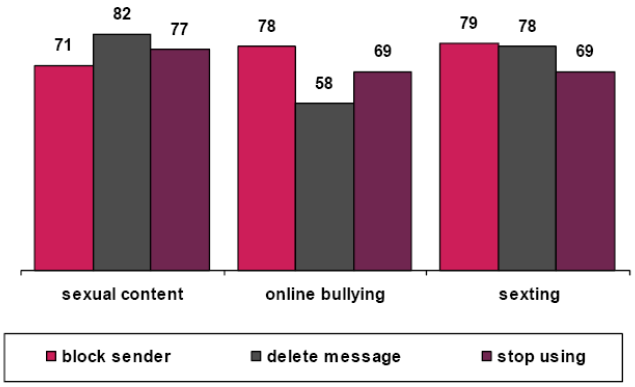


Figure 2: Helpfulness of coping responses (% of those who had applied a coping strategy)



Children who stopped using the internet were likely to combine this with deleting unwelcome messages, regardless of the type of risk they were confronted with. When seeing disturbing sexual content, stopping using the internet was also combined with talking to somebody and blocking the sender. This indicates that these children were not merely passive or fatalistic, as they combined stopping using the internet with proactive or problem-solving strategies. We could also assume that going offline for a while was (in most cases) only temporary.

Children hoping the problem would go away by itself generally did not systematically combine this with another strategy, and the negative correlation shows that they were not motivated to try to fix the problem. For 30% of the children hoping the problem would go away after seeing disturbing sexual images, this was the only strategy they used.

When bothered by contact risks (i.e., online bullying and sexting), children using a communicative strategy would also try to fix the problem and tended to delete unwelcome messages and to block contacts. This suggests an approach that was aimed at both solving the problem and receiving emotional support.

It was common to combine online proactive coping strategies: children who deleted unwelcome messages were also likely to block the sender.

Who are the vulnerable children?

Among those who felt bothered, some children just felt a little bit upset and got over it straight away. Other children experienced strong negative feelings that lasted for longer. Who were these children who felt more intensely upset, and thus could be considered as more vulnerable?

A linear regression analysis looks at how the intensity of harm is related to children's individual characteristics, social context and online activities. The number of online activities is an indication of their position on the ladder of online opportunities: the higher their involvement in online activities, the higher their position on the ladder of online opportunities (Livingstone and Helsper, 2007; Livingstone and Haddon, 2009).

This analysis is based on the subsamples of children who reported that they felt upset after having been exposed to an online risk. Calculating the harm index, some respondents were excluded due to missing values, which explains the variable sample sizes.

Operationalization of the concepts

Individual characteristics: sociodemographic

- Gender, age and socioeconomic status

Individual characteristics: psychological

- Self-efficacy: being able to deal with new and unexpected situations
- Psychological problems: having emotional problems (feeling bad and unhappy), conduct problems (not behaving properly in social situations) and peer problems (being lonely, not making friends)

Social context: peer support

- Advice from peers on how to use the internet safely

Social context: teacher support

- Guidance and advice from teachers on safer internet use

Social context: parental mediation

- Mediation of internet use: co-using the internet
- Mediation of internet safety: giving guidance and advice on safer internet use
- Restricting: prohibiting the use of certain online applications
- Monitoring internet use: checking and controlling the child's internet use
- Monitoring internet safety: using technical tools to control the child's online activities
- Parents' internet use: being a frequent user, an occasional user or a non-user

Online activities

- The number of online activities the child was involved in in the last month (minimum = 0, maximum = 17).

9- to 10-year-olds: how upset did you feel?

For the 9- to 10-year-olds, the intensity of harm was measured by how upset the child felt on a four-point scale, ranging from 'very upset' to 'not at all upset'.

Sexual content (*n* = 123): girls, children with more psychological problems and those receiving more support from their friends felt more upset. Children who felt very upset were more likely to seek emotional support from their social network.

Online bullying (*n* = 119): self-efficacious children and those children with more psychological problems felt more upset. Parental mediation of online safety and restrictions on children's internet use were also related to children being more upset. It seems plausible that parents engaged more in mediating activities when their child had had a negative experience online.

11- to 16-year-olds: harm index

In addition to how upset they felt, the 11- to 16-year-olds were asked to indicate for how long they had been upset. The duration of harm was measured using a four-point scale, ranging from 'got over it straight away' to 'several months'. We calculated the harm index including the duration variable in the analysis.

Harm index = how upset did you feel (intensity) x for how long did you feel upset (duration)?

Sexual content (*n* = 630): girls, younger children, children with more psychological problems, those receiving more support from their teachers and children with parents who monitored their internet safety felt harmed more intensely.

Online bullying (*n* = 895): girls, older children, children from less affluent families, those with more psychological problems, children whose parents mediated their internet safety, restricted their internet use, monitored their internet safety and children whose parents mediated less their internet use also felt more intensely harmed.

Sexting (*n* = 422): younger children, children from less affluent families and children with low self-efficacy felt harmed more intensely. Children whose parents mediated their internet safety and monitored their internet safety felt harmed more intensely; considering the reason for this correlation, it seems plausible that parents with children who had had a bad experience engaged more in mediation and monitoring afterwards.

Online and offline vulnerability seem to be related to each other, as having psychological problems and/or low self-efficacy was related to feeling upset more intensely when being bothered by something online.

Among the 11- 16-year-olds, younger teens had more difficulties in dealing with sexual risks. Those with a lower socioeconomic background felt more harm as victims of online bullying. Across all age groups under

study, girls were more sensitive towards sexual content bothering them.

Social support from peers, teachers and parents had ambivalent outcomes. Being restrictive did not protect children from feeling more intensely harmed, but neither did parental mediation or monitoring. A possible hypothesis is that parental mediation and monitoring of internet safety were the result (rather than the cause) of feeling harmed. **It is likely that parents decided to mediate and monitor more actively after they noticed their child had had a negative experience online. Another possible explanation is that children, whose parents monitored, controlled or restricted internet use more, were less confronted with risks, and therefore had fewer opportunities to develop resilience.**

Resilience: what comes into play?

Resilience is the ability to deal with negative experiences online or offline. When exposure to online risks does not result in actual harm (i.e., when a child is able to deal with the issue without feeling bothered or upset), this is an indication of a higher level of resilience. In other words, **children who do not feel bothered after risky experiences online are considered to be more resilient.**

Resilience in this study was operationalized as a dichotomous variable. Low resilient children were those being bothered at least once after exposure to one or more online risks. High resilient children were those who never felt bothered, although they encountered at least one of the online risks.

We are aware that being resilient is not a simple 'yes or no' question, and that would rather be understood as a continuum from very low to very high resilience. However, this dichotomization allowed us to conduct a logistic regression analysis to learn more about the predictors of resilience.

A logistic regression analysis looked into the predictors for the children feeling bothered ('never bothered' versus 'bothered at least once') after exposure to online risks. Children who were not exposed to any of the online risks were not included in the analyses.

Resilience among 9- to 10-year-olds (n = 498)

Among the youngest age group, boys, children living in less affluent families and children with more psychological problems were less resilient after exposure to online risks, in the sense that they were more likely to feel bothered by these risky experiences.

Resilience among 11- to 16-year-olds (n = 4,923)

Girls, younger children, children with more psychological problems, those receiving more support from their friends, children whose parents mediated their internet use and children whose parents were low internet users were less resilient.

At all ages, children with psychological problems were less resilient. The social context seemed to have a stronger impact on teenagers. Again, the causal relationship could be reversed, with less resilient teens seeking more support from their friends and parents who decided to mediate their child's internet use more actively. Surprisingly, while boys were less resilient at a younger age, girls were less resilient as teenagers.

Coping with risks: one size does not fit all

Previously, we could see that different online risks provoked different coping responses. **If a child responded proactively with the intention of solving the problem or transferring negative emotions into positive or neutral feelings, this was a sign of being able to deal with upsetting or stressful issues.** Hence, children who employed such coping strategies were considered to be more resilient to online risks.

In this study, both communicative and proactive strategies were seen as signs of resilience, because these strategies were aimed at tackling the problem and/or seeking emotional support. Proactive strategies could be general (try to fix the problem) or specifically internet-related (delete messages, block contacts).

To stop using the internet was not considered a favourable strategy, since going offline was related to missing out online opportunities, and the problem could easily re-occur because the cause had not been tackled. Nevertheless, the majority of children adopting this approach indicated this was helpful to them. Moreover, it was often combined with other (proactive) strategies.

We now take a closer look at the predictors for the six coping strategies discussed above. Logistic regression analyses show which characteristics of the child predicted the use of a certain coping strategy. Both individual characteristics, social context variables and

online activities were included in the regression models as predictors (for operationalizations, see above). For each type of online risk separately (sexual content, online bullying and sexting) we looked at the predictors for the six coping strategies, which resulted in 18 logistic regression analyses. **We now present an overview of which children were more resilient, i.e., those tending towards a proactive or problem-solving approach.**

- Regardless of what type of risk upset them, **girls** were more likely to talk about the problem. If upset by sexual risks, **younger children** were also more prone to talk about it.

Self-efficacy played a crucial role in terms of being proactive, with more self-efficacious children more likely to try to fix the problem. Children with **psychological problems** were more passive or fatalistic, especially when confronted with online bullying or upsetting sexual messages. They responded more often with just hoping the problem would go away, or stopped using the internet.

For victims of online bullying and sexting, children who received more **support from their peers** were more likely to delete the message (online bullying) or to talk to somebody about the problem (sexting). Nevertheless, mediation by peers might also result in passivity (sexual images).

Being restrictive did not seem to help children in developing resilience to online risks. As children were more restricted in their internet use, they developed a tendency to go offline for a while after being bullied online. However, children with less restrictive parents more often simply hoped the problem would go away by itself.

More **parental involvement in children's online safety** (mediation and monitoring) was correlated with talking to somebody after being bothered by online risks. However, at the same time, monitoring children's online safety was also related to being passive or fatalistic in the case of disturbing sexual content. Also, victims of online bullying were more likely to refrain from internet use when their internet safety was closely monitored by their parents.

Children with **parents who used the internet sporadically** were more passive or fatalistic when confronted with sexual risks. Because these parents may have felt less confident in using the internet, they may have had more difficulty in giving their children advice on how to cope with these.

Children performing a broad **range of online activities** did not systematically use certain coping strategies. However, there are some indications that those who were lower on the ladder of opportunities were less resilient, as they were less likely to talk to somebody when being a victim of online bullying, and they tended to go offline for a while after seeing disturbing sexual images.

We conclude that (1) girls, younger children, those with low self-efficacy and psychological problems are in need of special attention, and that (2) the relationship between the social context and the use of coping strategies is less straightforward.

A look at country level

How did children's resilience to online risks vary across countries? We take a look at the percentage of children that was 'never bothered' after a risky experience. These children can be labelled as 'resilient', as exposure to online risks did not disturb them.

The 9- to 10-year-olds were surveyed on exposure and harm related to sexual images, online bullying and meeting new people. For the 11- to 16-year-olds, sexting was also included. Because of this difference in risks surveyed, we present a separate analysis for the two age groups. Only the children who were bothered by at least one online risk were included in the analyses. As the country weight was used for these analyses, the number of valid cases differs from that in previous analyses.

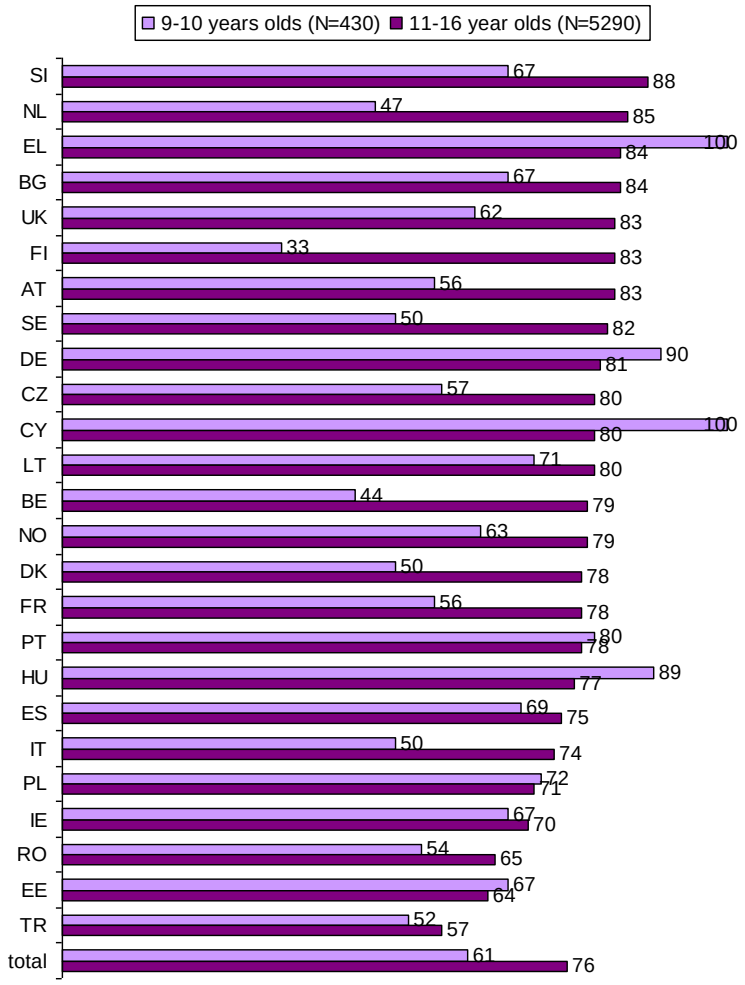
9- to 10-year-olds (n = 430)

Among the children who had been exposed to at least one online risk, **61% of the 9- to 10-year-olds was 'never bothered'** after exposure to one of the three risks under study (i.e., sexual images, online bullying or meeting new people). In Finland, only one in three children did not feel bothered, while in Cyprus and Greece, all children indicated having no negative feelings. These rather extreme percentages can be explained by the limited number of 9- to 10-year-olds who had been exposed to online risks. Only these children were included in the analysis.

11- to 16-year-olds (n = 5,290)

As they grow older, children become more resilient. On average, **76% of the 11- to 16-year-olds who had had at least one risky experience had 'never been bothered' by one of the four risks under study (i.e., sexual images, online bullying, meeting new people or sexting).** In Turkey, only 57% had never been disturbed, while in Slovenia, 88% indicated not having felt bothered by seeing sexual messages, online bullying, sexting or meeting new people. In the larger subgroup of 11- to 16-year-olds, the standard deviation was low, which shows that the differences among the participating countries regarding resilience towards online risks were limited. No clear regional pattern emerged from the data.

Figure 3: Percentage of resilient children, by country.
9- to 10-year olds (n=430); 11- to 16-year olds (n=5,290).



Recommendations

Encourage open communication, both at home and at school. Talking about the problem can bring emotional relief, and is often the first step in reaching a suitable solution if a child feels bothered by online risks.

Show children how to use (online) proactive coping strategies (e.g. delete messages, block contacts, report providers) from an early age, taking into account developmental factors such as interest in sexuality. These proactive strategies can be taught in both formal and informal learning contexts. Children who know how to adopt one such strategy will more easily adopt similar ones.

Help children tackle their psychological problems and build self-confidence. Special attention to children with low self-efficacy and psychological difficulties such as peer, conduct or emotional problems is crucial. Experiencing difficulties and problems offline is a good indicator of being more at risk of negative experiences online. This relationship between resilience to offline and online adversities indicates the so-called double jeopardy effect: children who are more vulnerable offline also tend to be less resilient online.

Keep promoting internet access and use among adults, as parents who are frequent internet users themselves feel more confident with the medium, and also feel more confident in guiding their children on the internet.

Promote a positive attitude towards online safety and proactive coping strategies among peer groups. Support from friends and classmates shows ambivalent outcomes. Hence, we assume that the attitudes and values within the peer groups have an impact on how children cope with online risks.

Even though, in general terms, levels of teacher mediation are high, a large minority of children is still not reached by a teacher's guidance. This suggests that schools, especially primary ones, and teachers should provide more active support with regard to children's internet use and safety. Support from teachers should not be limited to purely technical help or to setting rules. Teachers should stimulate their pupils to resort to proactive problem-solving strategies as well as show them how online tools and applications work. Sufficient digital skills among the teachers themselves are therefore crucial.

Parents should be careful with restricting children's internet use because this does not prevent children from having a negative experience after risk exposure. **Depending on the type of risk, a monitoring or mediating approach seems to be more beneficial for children's online resilience**, although the results were not straightforward.

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The *EU Kids Online* network has been funded by the EC Safer Internet Programme in three successive phases of work from 2006-14 to enhance knowledge of children's and parents' experiences and practices regarding risky and safer use of the internet and new online technologies.

As a major part of its activities, *EU Kids Online* conducted a face-to-face, in-home survey during 2010 of 25,000 9- to 16-year-old internet users and their parents in 25 countries, using a stratified random sample and self-completion methods for sensitive questions.

Now including researchers and stakeholders from 33 countries in Europe and beyond, the network continues to analyse and update the evidence base to inform policy.

For reports, findings and technical survey information see www.eukidsonline.net

Annex

Risk-specific coping strategies?

Frequencies on coping responses to online risks (Figure 1)

- Subsample: children who indicated being upset by online risks (n = 971 for sexual content, n = 1,290 for online bullying, n = 567 for sexting)
- Analysis: frequency tables

Evaluation of the coping strategies (Figure 2)

- Among the six coping strategies under study, questions on the evaluation of coping strategies were only asked for: stop using the internet, delete messages and block sender
- Subsample: those children who indicated using a specific strategy (and having indicated that they felt bothered by the subsequent online risk)
- Analysis: frequency tables

Using a combination of coping strategies

- A new variable was calculated, based on the number of times a child answered 'yes' to the questions about the use of coping strategies. Six coping strategies were taken into account
- Subsample: children who indicated being upset by online risks (n = 796 for sexual content, n = 1,210 for online bullying, n = 504 for sexting)
- Missing values: children who did not feel bothered or children who used another coping strategy were not included in the selection of six strategies (e.g. 'none of these')
- Analysis: frequency tables

Combining coping strategies

- Subsample: children who indicated being upset by online risks (n = 971 for sexual content, n = 1,290 for online bullying, n = 567 for sexting)
- Analysis: for each type of risk, the Pearson correlation coefficients were calculated for the six coping strategies
- Using 'select cases', we can see which children used only one specific coping strategy

Who are the vulnerable children?

We conducted a linear regression analysis, with the independent variables entering the model in three blocks: individual characteristics, social context variables and online activities. As to the variables on parental mediation, we used the children's answers. The dependent variable was the 'intensity of harm'. For the 9- to 10-year-olds, this was the four-point scale item measuring 'How upset did you feel?' For the 11- to 16-year-olds, we used the harm index, a multiplication of two four-point scale items measuring 'How upset did you feel?' and 'For how long did you feel upset?'

Block 1: individual characteristics

- Sex
- Age
- Socioeconomic status (SES): 1 = low SES, 2 = medium SES, 3 = high SES
- Self-efficacy: mean of four items, measured on a three-point scale, ranging from 1 = not true to 3 = very true
- Psychological problems: mean of 15 items related to emotional, conduct and peer problems, measured on a three-point scale, ranging from 1 = not true to 3 = very true

Block 2: social context variables

- Peer support: number of times the child indicated receiving help/support from a friend, maximum = 5
- Teacher support: number of times the child indicated receiving help/support from a teacher, maximum = 8
- Parental mediation of internet use: number of times the internet use of the child was mediated, maximum = 5
- Parental mediation of internet safety: number of times the internet safety of the child was mediated, maximum = 6
- Parental restrictions: number of online activities the child was not allowed to do whenever he/she wanted, maximum = 6
- Parental monitoring of internet use: number of times the internet use of the child was monitored, maximum = 4
- Parental monitoring of internet safety: number of times the internet safety of the child was monitored, maximum = 4
- Parental internet use: frequency of parents' internet use on a three-point scale, ranging from 1 = never, 2 = less than once a day, 3 = (almost) every day

Block 3: online activities

- Number of online activities the child had done during the last month (maximum = 17)

Linear regression model with standardized betas (predictors for harm)

	9- to 10-year-olds		11- to 16-year-olds		
	SC (n=123)	BL (n=119)	SC (n=630)	BL (n=895)	SX (n=422)
Females	0.34***	n.s.	0.08*	0.12***	n.s.
Age	n.s.	n.s.	-0.15**	0.09*	-0.13*
SES	n.s.	n.s.	n.s.	-0.11**	n.s.
Self-efficacy	n.s.	0.18*	n.s.	n.s.	-0.13*
Psychological problems	0.26**	0.24**	0.16***	0.15***	n.s.
Support from friends	0.26*	n.s.	n.s.	n.s.	0.15**
Support from teachers	n.s.	n.s.	0.13**	n.s.	n.s.
Mediation of internet use	n.s.	n.s.	n.s.	-0.13**	n.s.
Mediation of internet safety	n.s.	0.38***	n.s.	0.14**	0.18**
Restrictions	n.s.	0.22*	n.s.	0.14***	n.s.
Monitoring internet use	n.s.	n.s.	-0.12*	n.s.	n.s.
Monitoring internet safety	n.s.	n.s.	0.13**	0.10**	0.17**
Parents internet use	n.s.	n.s.	n.s.	n.s.	n.s.
Online activities	n.s.	n.s.	n.s.	n.s.	n.s.
F-value	3.57***	4.80***	8.02***	9.26***	4.64***
R^2	0.30	0.37	0.15	0.13	0.14

SC = exposure to sexual content, BL = exposure to online bullying, SX = exposure to sexting

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

Resilience: what comes into play?

Children who did not feel bothered after risky experiences online were considered to be more resilient.

- 0 = low resilience: child is bothered at least once after risk exposure
- 1 = high resilience: none of the exposures resulted in harm

A logistic regression analysis looked at the predictors for the children being bothered (never or at least once) after exposure to online risks. Children who were not exposed to any of the online risks were not included in the analyses. (n = 498 for 9- to 10-year-olds, n = 4,923 for 11- to 16-year-olds).

Logistic regression model of the log odds of children being resilient

	9- to 10-year-olds (n = 498)	11- to 16-year-olds (n = 4,923)
Gender	0.58*	1.27**
Age		0.92**
SES	0.70*	
Self-efficacy		
Psychological problems	6.49***	2.86***
Support from friends		1.10***
Support from teachers		
Mediation of internet use		1.14***
Mediation of internet safety		
Restrictions		
Monitoring internet use		
Monitoring internet safety		
Parents internet use		0.77***
Online activities	n.s.	n.s.
Omnibus test X^2 (df)	50.78*** (13)	221.04*** (14)
Nagelkerke R square	0.19	0.07

If exp(b)>1: positive relationship, if exp(b)<1: negative relationship
$p<0.05$; ** $p<0.01$; *** $p<0.001$

Coping with risk: one size does not fit all

Using logistic regression analyses, we discovered what predicted the use of a certain coping strategy. The enter method was used, entering the independent variables (predictors) in three blocks. For more detailed operationalizations of the predictors, see above.

The dependent variables were the six selected coping strategies: stop using the internet, hope the problem goes away, talk to somebody, try to fix the problem, delete messages, block sender. The use of a coping strategy was a dichotomous variable (0 = strategy was not used and 1 = strategy was used). In total, we conducted 18 logistic regressions (three types of online risks, six types of coping strategies).

SEXUAL CONTENT

Logistic regression model of the log odds of children using a coping strategy

	Hope the problem would go away (*n* = 734)	Stop using the internet (*n* = 701)	Talk to somebody (*n* = 688)	Try to fix the problem (*n* = 734)	Delete messages (*n* = 701)	Block sender (*n* = 701)
Gender		2.18**	1.49*			
Age	0.74***		0.84**			
SES	0.72*					
Self-efficacy				2.22***		
Psychological problems				5.21***		
Support from friends		1.27**	1.15*			1.16*
Support from teachers						
Mediation of internet use						
Mediation of internet safety			1.23***		1.14*	
Restrictions	0.82**				0.78**	
Monitoring internet use		1.31**				
Monitoring internet safety	1.33**	1.51***	1.28**			1.21*
Parents internet use		0.58**				
Online activities		0.82***				
Omnibus test X^2 (df)	**64.76***(14)**	**98.89***(14)**	**91.83***(14)**	**55.29***(14)**	**35.01**(14)**	**29.08*(14)**
Nagelkerke R square	**0.13**	**0.23**	**0.18**	**0.13**	**0.08**	**0.07**

If exp(b)>1: positive relationship, if exp(b)<1: negative relationship $p<0.05$;
** $p<0.01$; *** $p<0.001$

ONLINE BULLYING

Logistic regression model of the log odds of children using a coping strategy

	Hope the problem would go away (*n* = 991)	Stop using the internet (*n* = 976)	Talk to somebody (*n* = 959)	Try to fix the problem (*n* = 991)	Delete messages (*n* = 976)	Block sender (*n* = 976)
Gender	1.43*		2.47***	1.54**		
Age		0.86*				
SES				1.32**	1.25*	
Self-efficacy			1.65*	2.33***		
Psychological problems	5.31***	4.32***				
Support from friends					1.19***	
Support from teachers					0.92**	
Mediation of internet use				1.17**	0.88*	0.89*
Mediation of internet safety			1.30***			1.15**
Restrictions						
Monitoring internet use			0.72***			
Monitoring internet safety			1.34**			
Parents internet use	1.33*	1.28**				
Online activities		0.74*	0.92*			
Omnibus test X^2 (df)	82.11***(14)	83.29***(14)	127.92***(14)	54.86***(14)	39.53***(14)	27.86*(14)
Nagelkerke R square	**0.12**	**0.15**	**0.20**	**0.08**	**0.06**	**0.04**

If exp(b)>1: positive relationship, if exp(b)<1: negative relationship $p<0.05$;
** $p<0.01$; *** $p<0.001$

SEXTING

Logistic regression model of the log odds of children using a coping strategy

	Hope the problem would go away (*n* = 397)	Stop using the internet (*n* = 422)	Talk to somebody (*n* = 415)	Try to fix the problem (*n* = 397)	Delete messages (*n* = 422)	Block sender (*n* = 422)
Gender	0.28***	0.42*	2.31***			1.80**
Age	0.83*	1.49**	0.82**			
SES	0.63*		0.69*			
Self-efficacy	0.32**	0.12***		3.12***		
Psychological problems		4.11*				
Support from friends			1.27**			
Support from teachers						
Mediation of internet use		1.32*		0.77**		
Mediation of internet safety						1.18*
Restrictions	0.75**					
Monitoring internet use				1.26*		
Monitoring internet safety			1.27*			
Parents' internet use	0.63*					
Online activities	1.15*					
Omnibus test X^2 (df)	61.09***(14)	67.04***(14)	67.18***(14)	38.54***(14)	n.s.	30.54**(14)
Nagelkerke R square	**0.21**	**0.26**	**0.19**	**0.12**		**0.09**

If exp(b)>1: positive relationship, if exp(b)<1: negative relationship $p<0.05$;
** $p<0.01$; *** $p<0.001$