

Bullying

Bullying at school can have long-lasting consequences for students' (both victims and bullies) psychological well-being. This chapter defines bullying according to PISA and explains how PISA measures the incidence of bullying. It discusses the prevalence of bullying around the world and which students might be more likely to be victims of bullying. The chapter examines the relationship between bullying and student performance, and between bullying and other dimensions of students' well-being. The chapter concludes with a discussion on how schools, teachers and parents can help reduce the incidence of bullying.



Education policy makers around the world are becoming increasingly concerned about bullying (Nansel et al., 2004; Rigby, 2007; Rivara and Le Menestrel, 2016). Bullying is a systematic abuse of power, and can be identified by three key traits: repetition, intention to harm, and an unequal power between the bully and the victim (Woods and Wolke, 2004). The prevalence of bullying has been shown to vary significantly across countries (Craig et al., 2009; Nansel et al., 2004). But in all countries bullying has harmful effects on individual students, their families and the school community.

What the data tell us

- Some 4% of students across OECD countries reported they are hit or pushed around by other students at least a few times per month. Around 11% of students reported that other students make fun of them at least a few times per month. Girls are less likely than boys to be victims of physical aggression, but are more likely to be the objects of nasty rumours. Recently arrived immigrant students were also more likely to report being victims of all types of bullying.
- Low-performing students are more likely to become victims of bullying. Students in schools where bullying is
 frequent, by international standards, score 47 points lower in science than students in schools where bullying
 occurs less frequently.
- Students who reported being frequently exposed to bullying also reported a weaker sense of belonging at school
 and less satisfaction with life. Students who are frequently bullied are also more likely to be truant.
- The proportion of students who reported being victims of bullying is larger in schools with high percentages of students who had repeated a grade, where students reported a poor disciplinary climate in class, and where students reported that their teachers treat them unfairly. Victimisation was less frequently reported by students who said that their parents support them when facing difficulties at school.

Bullying has serious consequences for both the bully and the victim (Rivers, 2000). Adolescents engaged in bullying as perpetrators, victims, or both are more likely to skip classes, drop out of school, and perform worse academically than schoolmates who have no conflictual relationships with their peers (Konishi et al., 2010; Townsend et al., 2008). Adolescents who bully or are bullied are more likely to show symptoms of depression and anxiety, have low self-esteem, feel lonely, change their eating patterns, and lose interest in activities (Haynie et al., 2001; Kochel et al., 2012; Striegel-Moore et al., 2002). Emotional and behavioural problems suffered by both victims and bullies may continue into adulthood, leading to long-term negative outcomes, including less participation in the labour force (Drydakis, 2014).

Bystanders are also negatively affected by bullying. Those who witness bullying often report feelings of guilt or helplessness for not confronting the bully and/or supporting the victim (Huitsing and Veenstra, 2012).

The likelihood of becoming a bully, or the victim of a bully, is often associated in the literature with certain personal characteristics, such as age, physical appearance, gender and ethnicity. For example, students who are obese are more likely to become victims or bullies than their peers who are not obviously overweight (Griffiths et al., 2006; Janssen et al., 2004). Research also shows that adolescents who are physically less developed, unhappy with their appearance, or socially isolated are also more likely to be victims of bullying (Faris and Felmlee, 2014). Adolescents who are victims of violence or aggression at home, or who are exposed to violent or abusive relationships between their parents, are more likely to become bullies themselves (Wolke and Skew, 2011).

But the fact that some types of adolescents are more at risk than others should not lead to the erroneous conclusion that only students with a specific personality or social profile can become bullies or victims of bullying. Bullies do not necessarily come from difficult homes, and they vary considerably in their levels of social skills. Some are leaders within their social groups; others are marginalised in the peer group and may, themselves, be victimised (Ma, 2004). Recent research has also shown the dynamic and fluid nature of children's involvement in bullying across roles and over time. For instance, a student may be victimised by classmates at school but bully his or her siblings at home (Swearer and Hymel, 2015).

Group dynamics are important in explaining and understanding bullying (Huitsing and Veenstra, 2012). Bullying involves more than solely those who bully and those who are bullied in the classroom (Salmivalli et al., 1996; Sutton et al., 1999). The physical or psychological abuse generally occurs in the presence of peers, who play a critical role in strengthening, maintaining or ending the bullying behaviours (Pepler, Craig and O'Connell, 2010). School policies can limit bullying by influencing group norms in the classroom (Card and Hodges, 2006).



DEFINING AND MEASURING BULLYING IN SCHOOL

Bullying can take different forms. Physical (hitting, punching or kicking) and verbal (name-calling or mocking) bullying refers to direct forms of abuse (Smith and Sharp, 1994). Relational bullying refers to the phenomenon of social exclusion, where some children are ignored, excluded from games or parties, rejected by peers, or are the victims of gossip and other forms of public humiliation and shaming (Woods and Wolke, 2004).

As teenagers use electronic communications more and more, cyberbullying has become a new form of aggression expressed via online tools, particularly mobile phones (e.g. instant messaging, social networks and e-mails) (Box III.8.1). The different types of bullying – physical, verbal, relational, cyber – tend to occur concurrently. Bullying is particularly frequent during times of transition in children's and adolescents' lives, when they are figuring out where they fit in among new peer groups.

The rates of prevalence of bullying vary greatly across studies, reflecting differences in assessment approaches, as well as differences across contexts and cultures. PISA 2015 measures the incidence of bullying using reports from the victim's perspective. Figure III.8.1 shows the six questions on bullying included in PISA 2015 that are analysed in this report and the type of bullying they aim to measure. The index of exposure to bullying summarises students' reported experiences with these six forms of bullying (see Annex A1 for a detailed explanation of the construction of this index). The index was standardised to have a mean of 0 and a standard deviation of 1 across OECD countries. Positive values on the index indicate students who reported to be more frequently bullied than the average student in OECD countries, while negative values indicate students who reported less frequent exposure to bullying than the average student in OECD countries.

Students are classified as frequently bullied if they are among the 10% of students with the highest value on the index of exposure across all countries and economies with available data (a value greater than 1.59 on the index of exposure to bullying). This cut-off was selected because most of the students at or above this level are frequently exposed (at least a few times per month) to at least three of the six forms of bullying measured by the index (see Table A1.7 in Annex A1). Across all countries and economies with available data, more than one in two of the students who are classified as frequently bullied in this way reported they are made fun of, are excluded on purpose, or are objects of nasty rumours at least a few times per month; almost four out of ten reported that they are hit or pushed, threatened or have their belongings taken away or destroyed at least a few times per month.

Figure III.8.1 • Measures of bullying from the victim's perspective

| During the past 12 months | , how often have you | had the following | experiences in school? |
|---------------------------|----------------------|-------------------|------------------------|
|---------------------------|----------------------|-------------------|------------------------|

(Please select one response in each row. Never or almost never; A few times a year; A few times a month; Once a week or more)

| Action | Type of bullying | | | |
|---|------------------|--|--|--|
| Other students left me out of things on purpose. | Relational | | | |
| Other students made fun of me. | Verbal | | | |
| I was threatened by other students. | Verbal/physical | | | |
| Other students took away or destroyed things that belong to me. | Physical | | | |
| I got hit or pushed around by other students. | Physical | | | |
| Other students spread nasty rumours about me. | Relational | | | |

REPORTED FREQUENCY OF BULLYING, VICTIMISATION AND STUDENT CHARACTERISTICS

Certain types of bullying occur more frequently than others. Making fun of other students is usually the most common form of bullying (Wang, Iannotti and Nansel, 2009). While the incidence of physical bullying and cyberbullying peaks among middle-school students and declines as students age, verbal and relational bullying remain frequent among upper secondary students (Williams and Guerra, 2007). PISA 2015 shows that, in many countries, verbal and psychological bullying occur frequently. On average across OECD countries, around 11% of students reported that they are frequently (at least a few times per month) made fun of, 8% reported that they are frequently the object of nasty rumours in school, and 7% reported that they are frequently left out of things. More than 10% of students in 34 out of 53 countries and economies reported that their peers make fun of them at least a few times per month. A similar proportion of students in 16 of 53 countries and economies reported that they are frequently the object of rumours, while in 13 out of 53 countries and economies, more than 10% of students reported that others frequently leave them out of things (Table III.8.1 and Figure III.8.2).



Figure III.8.2 ■ Students' exposure to bullying

Results based on students' self-reports and index of exposure to bullying

| of exposur | re to bullying -0.5 0.0 | 0.5 1.0 | Percentage of frequently bullied students ¹ | Any type of bullying act | Other students left me out of things on purpose | Other students made fun of me | I was threatened by other students | Other students took away or destroyed things that belong to me | I got hit or pushed around by other students | Other students spread nasty rumours about me |
|------------|--------------------------------|----------------------|--|--------------------------------|--|--|---|---|--|--|
| | | Latvia | 17.5 | 30.6 | 12.7 | 15.0 | 6.5 | 7.2 | 8.4 | 13.2 |
| | | New Zealand | 18.3 | 26.1 | 12.8 | 17.4 | 8.3 | 6.3 | 6.7 | 12.8 |
| | | Singapore | 14.5 | 25.1 | 11.9 | 18.3 | 4.4 | 5.1 | 5.1 | 8.7 |
| | | Macao (China) | 14.4 | 27.3 | 9.5 | 19.9 | 6.2 | 8.5 | 4.2 | 9.3 |
| | | Australia | 14.8 | 24.2 | 12.8 | 15.1 | 7.2 | 5.7 | 5.7 | 11.2 |
| | | ■ United Kingdom | 14.2 | 23.9 | 11.4 | 15.1 | 6.5 | 4.7 | 5.4 | 11.1 |
| | | Canada | 12.9 | 20.3 | 9.5 | 13.4 | 4.7 | 4.0 | 5.0 | 7.8 |
| | | ■ Qatar ■ Tunisia | 19.1 16.2 | 25.0 28.2 | 12.2 11.7 | 14.6 13.1 | 8.7 | 9.1 7.4 | 8.8 | 12.3 12.6 |
| | | United Arab Emirates | 17.8 | 27.0 | 12.4 | 15.9 | 9.4 8.2 | 9.4 | 8.6 8.0 | 12.7 |
| | | Poland | 10.7 | 21.1 | 8.3 | 11.7 | 3.9 | 4.2 | 4.1 | 13.0 |
| | | Estonia | 9.5 | 20.2 | 6.6 | 13.7 | 3.0 | 3.9 | 4.7 | 6.9 |
| | | Switzerland | 7.3 | 16.8 | 5.6 | 10.7 | 2.4 | 4.6 | 2.8 | 7.0 |
| | | Finland | 9.5 | 16.9 | 7.2 | 10.5 | 3.1 | 2.7 | 4.6 | 6.8 |
| | | Denmark | 6.4 | 20.1 | 6.0 | 11.2 | 1.9 | 4.2 | 3.5 | 7.7 |
| | | Hong Kong (China) | 15.4 | 32.3 | 8.5 | 26.1 | 7.1 | 10.5 | 9.5 | 9.4 |
| | | Belgium | 7.2 | 18.5 | 5.9 | 11.1 | 2.7 | 3.0 | 3.1 | 8.8 |
| | | Germany | 6.1 | 15.7 | 5.4 | 9.2 | 1.7 | 3.8 | 2.3 | 7.3 |
| | | United States | 10.0 | 18.9 | 10.0 | 11.4 | 4.9 | 3.5 | 3.8 | 7.9 |
| | | Colombia | 7.6 | 22.1 | 8.3 | 11.5 | 3.3 | 4.5 | 4.0 | 10.9 |
| | | Czech Republic | 11.7 | 25.4 | 9.8 | 11.1 | 4.5 | 7.3 | 7.5 | 13.3 |
| | | Chile | 7.9 | 18.0 | 7.4 | 9.6 | 2.9 | 4.6 | 3.2 | 9.6 |
| | | Bulgaria | 13.8 | 24.7 | 8.1 | 12.4 | 5.9 | 7.4 | 9.1 | 12.4 |
| | | Mexico | 10.1 | 20.2 | 9.0 | 13.0 | 4.1 | 4.6 | 5.3 | 9.3 |
| | | Thailand | 17.5 | 27.2 | 12.3 | 19.9 | 8.6 | 9.6 | 7.1 | 11.1 |
| | | Slovak Republic | 11.5 | 22.5 | 10.3 | 10.4 | 4.9 | 6.2 | 4.9 | 12.4 |
| | | Costa Rica | 10.9 | 20.8 | 8.1 | 11.8 | 4.6 | 2.0 | 2.7 | 12.2 |
| | - | Ireland | 6.8 | 14.7 | 5.9 | 8.5 | 2.9 | 3.4 | 3.1 | 6.0 |
| | E | B-S-J-G (China) | 10.5 | 22.5 | 7.9 | 12.3 | 3.5 | 12.5 | 4.2 | 6.3 |
| | | Austria Slovenia | 7.9 7.3 | 19.1 16.4 | 5.7 5.4 | 11.9 8.8 | 2.9 | 5.3 3.4 | 4.2 | 7.7 8.2 |
| | | OECD average | 8.9 | 18.7 | 7.2 | 10.9 | 3.7 | 4.2 | 4.1 | 8.4 |
| | | Norway | 9.6 | 17.7 | 7.0 | 9.4 | 3.8 | 5.0 | 4.6 | 8.4 |
| | | Russia | 9.5 | 27.5 | 18.1 | 11.8 | 5.0 | 5.6 | 3.1 | 9.0 |
| | | Uruguay | 9.5 | 16.9 | 8.8 | 10.3 | 4.2 | 4.1 | 4.0 | 7.8 |
| | | Hungary | 9.3 | 20.3 | 9.4 | 9.6 | 3.9 | 5.0 | 3.9 | 11.8 |
| | | France | 6.7 | 17.9 | 6.7 | 11.7 | 3.0 | 3.0 | 3.1 | 7.7 |
| | | Spain | 6.0 | 14.0 | 4.5 | 8.0 | 2.6 | 3.8 | 2.9 | 6.0 |
| | | Lithuania | 9.6 | 16.4 | 6.8 | 9.2 | 4.8 | 4.2 | 4.4 | 7.9 |
| | | Sweden | 8.4 | 17.9 | 6.4 | 9.4 | 3.9 | 4.5 | 5.4 | 7.1 |
| | | Croatia | 6.7 | 17.1 | 5.1 | 8.0 | 3.9 | 3.5 | 3.9 | 9.5 |
| Ţ | | Luxembourg | 7.9 | 15.7 | 5.7 | 8.6 | 3.4 | 4.2 | 3.5 | 7.9 |
| I | | Japan | 5.1 | 21.9 | 4.7 | 17.0 | 2.5 | 2.8 | 8.9 | 6.1 |
| | | Brazil | 9.0 | 17.5 | 7.8 | 9.3 | 4.1 | 5.3 | 3.2 | 7.9 |
| | | Peru | 6.1 | 18.4 | 6.2 | 7.7 | 2.7 | 5.4 | 3.6 | 9.6 |
| | | Dominican Republic | 12.2 | 30.1 | 16.2 | 15.3 | 8.3 | 11.4 | 4.8 | 13.1 |
| | | Netherlands | 3.3 | 9.3 | 2.5 | 4.3 | 1.3 | 2.2 | 1.8 | 4.9 |
| | | Iceland | 5.1 | 11.9 | 4.6 | 6.7 | 2.9 | 1.8 | 2.4 | 4.9 |
| | | Portugal | 5.7 | 11.8 | 4.7 | 6.7 | 3.2 | 3.0 | 2.3 | 5.6 |
| | | Greece | 6.7 | 16.7 | 4.9 | 10.0 | 3.2 | 4.6 | 4.3 | 7.3 |
| | | Chinese Taipei | 3.1 | 10.7 | 3.3 | 6.8 | 1.0 | 3.5 | 0.8 | 3.5 |
| | | Montenegro Turkey | 7.0 8.8 | 16.4 18.6 | 4.9 | 6.8 | 6.2 | 4.0 | 3.5 | 9.9 |
| | | | | 106 | 8.6 | 9.2 | 6.0 | 5.5 | 4.5 | 9.0 |

^{1.} A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying among all countries/economies. See Annex A1 for information on the index of exposure to bullying.

Countries and economies are ranked in descending order of the index of frequent exposure to bullying.

Source: OECD, PISA 2015 Database, Table III.8.1.

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Note: The frequency of students' exposure to bullying is measured according to a three-point scale: 1) "Never or almost never"; 2) "A few times a year"; 3) "At least a few times a month". For detailed information on how the index of exposure to bullying was derived, see Annex A1.



Physical bullying is probably the most obvious kind of violence in schools, and educators tend to perceive physical bullying as more serious than verbal and relational bullying (Craig et al., 2009; Rivara and Le Menestrel, 2016). On average across OECD countries, around 4% of students reported that they are hit or pushed at least a few times per month, although this percentage varies from around 1% to 9.5% across countries (Figure III.8.2). Another 7.7% of students reported they are physically bullied a few times per year (Table III.8.1). Similar proportions of students reported that they are threatened by others, and about 11% of students reported that their belongings have been destroyed or taken away by other students a few times per year.

Box III.8.1 The rise of cyberbullying

With the advent of social media and electronic communications, a new type of bullying has emerged: cyberbullying. Cyberbullying can take various forms, including sending nasty text messages, chats or comments, spreading rumours via online posts, or excluding someone from online groups. Online victims tend to be offline victims too (Salmivalli, Sainio and Hodges, 2013). But unlike traditional bullying, where a victim can find refuge at home, cyberbullying affects its victims anytime, anywhere – to the extent that a victim may feel incapable of escaping it (Agatston, Kowalski and Limber, 2007). Cyberbullying can also enable a relatively less "powerful" student to bully someone who is seen as more powerful (Rivara and Le Menestrel, 2016).

While boys are more likely to be bullies in traditional forms of bullying, girls are more likely to be involved in cyberbullying as victims and as perpetrators (Dukes, Stein and Zane, 2010; Mishna et al., 2012; Smith, 2013). The most recent data from the Health Behaviour in School-aged Children (HBSC) survey suggest that cyberbullying occurs less frequently than traditional forms of bullying, with between 1% and 12% of students in participating countries reporting to be victims of cyberbullying (Currie et al., 2012). Other studies find that between 7% and 15% of youth are affected by cyberbullying (Rivara and Le Menestrel, 2016). Students' ethnicity, sexual orientation, physical appearance, obvious health problems and disabilities are all related to the risk of becoming a victim of online harassment (Rivara and Le Menestrel, 2016).

The rise in the incidence of cyberbullying has been related to behavioural and psychosocial problems among young people (Ybarra and Mitchell, 2007). Victims and bullies are more likely to report feeling angry, anxious, sad or depressed. They often skip school, are harassed in other ways, and are unable to focus on school tasks (Juvonen and Gross, 2008; Li, 2005; Tokunaga, 2010). In extreme cases, victims may contemplate and even attempt suicide (DeSmet et al., 2014).

On average across OECD countries, boys were more likely than girls to report being bullied in all forms of bullying except being left out of things on purpose and being the object of nasty rumours (Figure III.8.3). Across OECD countries, 9.2% of girls, on average, reported that they are victims of nasty rumours at least a few times per month while 7.6% of boys reported so.

Percentage of students who reported being bullied at least a few times a month (OECD average) ■ Boys ◆ Girls 25 Other students I got hit or Any type of Other students I was threatened Other students Other students pushed around bullying act left me out made fun of me by other students took away or spread nastv of things destroyed things by other students rumours about me on purpose that belong to me

Figure III.8.3 • Students' exposure to each type of bullying, by gender

Note: All gender differences are statistically significant except for the statement "Other students left me out of things on purpose" (see Annex A3). Source: OECD, PISA 2015 Database, Table III.8.2.

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The difference between girls and boys in the percentage of students who reported that others spread nasty rumours about them is greater than five percentage points, in favour of girls, in Hong Kong (China), Macao (China), Qatar, Thailand, Tunisia and the United Arab Emirates. But the difference between boys and girls in the share of students who reported being frequently hit or pushed is larger than six percentage points, in favour of boys, in the Czech Republic, Hong Kong (China), Japan, Qatar, Singapore, Thailand, Tunisia and the United Arab Emirates (Table III.8.2). These findings are in line with previous research on gender differences in bullying that shows that boys are more often bullies than girls and are more likely to be physically violent towards each other (Camodeca et al., 2002; Veenstra et al., 2005).

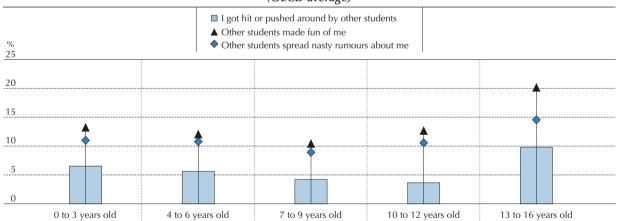
Previous studies suggest that low socio-economic status is associated with a higher likelihood that children will be involved in bullying, either as a bully, a victim, or both (Tippett and Wolke, 2014). Data from PISA 2015 show that, across OECD countries, the difference in the likelihood of being frequently bullied that is related to socio-economic status is not very large: on average between 1 and 2 percentage points, depending on the type of bullying (Table III.8.2). Concentration of disadvantage might, however, be related to a higher incidence of bullying. In 29 countries and economies with available data, students in disadvantaged schools were more likely to report being a victim of bullying than students in advantaged schools. Only in Japan, Korea and Macao (China) were students in advantaged schools more likely than students in disadvantaged schools to report so (Table III.8.6).

Because of differences in language, culture, ethnicity and appearance, children of immigrants might be more likely to be victimised (Qin, Way and Rana, 2008). Figure III.8.4 shows that the risk of being bullied increases substantially for those immigrant students who were 13 to 16 years old when they arrived in the host country. Poor language proficiency can be one reason why recently arrived students become targets of rumours or mocking (Peguero, 2008). In some contexts, long-standing conflicts between ethnic or national groups can lead to ethnic-based victimisation at school, and recent arrivals with weaker social networks can be easy targets for bullies (McKenney et al., 2006). The high rates of victimisation among recent arrivals suggest that there is a need for schools to provide activities that promote a common identity and instil an openness to cultural differences (OECD, 2016; Strohmeier and Spiel, 2003).

Figure III.8.4 • Immigrant students' age at arrival in the host country and exposure to bullying

Percentage of immigrant students who reported being bullied at least a few times a month, by their age at arrival

(OECD average)



Age differences can be another risk factor for bullying and victimisation at school. Grade repetition is a common practice used to give children and adolescents an extra year to develop academically, socially and/or behaviourally (OECD, 2016). But an unintended consequence of grade repetition can be an increase in bullying, given that students who are older than most of their classmates tend to display more aggression during adolescence than students who may also be low achievers, but who are promoted to the next grade with the rest of their classmates (Crothers et al., 2010). Table III.8.14 shows that, in most countries and economies, the larger the share of students in a school who had repeated a grade, the higher the likelihood of students reporting that they are frequently bullied. This relationship is still observed after accounting for differences in the socio-economic profile of the schools. This finding does not establish a causal relationship between



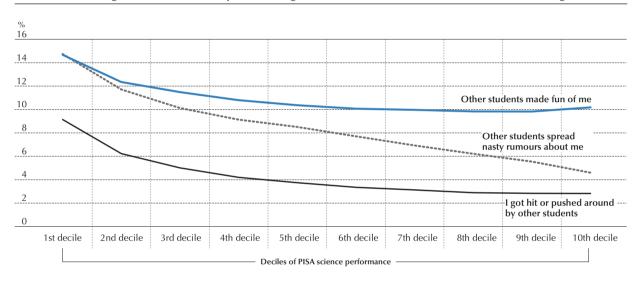
grade repetition and bullying behaviours; other school characteristics not accounted for in the analysis might be related to both a greater incidence of grade repetition and more frequent bullying. The finding might be related to the fact that students who have repeated a grade may have difficulty adjusting, socially and emotionally, to their status in class. Indeed, children frequently report that repeating a grade was the single most stressful event in their lives (Jimerson et al., 2002).

EXPOSURE TO BULLYING AND ACADEMIC PERFORMANCE

Being bullied can negatively affect academic achievement (Nakamoto and Schwartz, 2010) because the emotional, behavioural and psychological consequences of victimisation influence students' capacity to focus on academic tasks. Figure III.8.5 shows the percentage of students reporting that they are victims of certain types of bullying by deciles of science performance in PISA 2015. Across OECD countries, low performers tend to report greater exposure to physical, verbal and relational bullying. In Qatar, Thailand and the United Arab Emirates, students in the bottom decile of science performance were more likely – by at least 15 percentage points – to report being pushed or hit than students in the top decile of performance (Table III.8.4).

Figure III.8.5 • Percentage of frequently bullied students, by science performance

Percentage of students who reported being bullied at least a few times a month (OECD average)



Source: OECD, PISA 2015 Database, Table III.8.4.

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Frequent exposure to bullying among low performers might be related to the concentration of these students in schools that lack the resources to address disciplinary problems. Figure III.8.6 shows that, across OECD countries, schools where the incidence of bullying is high by international standards (more than 10% of students are frequently bullied) score 47 points lower in science, on average, than schools where bullying is less frequent (schools where less than 5% of students are frequently bullied). This difference in performance between the two types of schools remains substantial (around 25 score points) even after accounting for differences in schools' socio-economic profile. When comparing schools with similar socio-economic profiles, the association between science performance and reported bullying is particularly strong in Greece. This relationship suggests that bullying can both stem from and may exacerbate students' disengagement with school and underperformance.

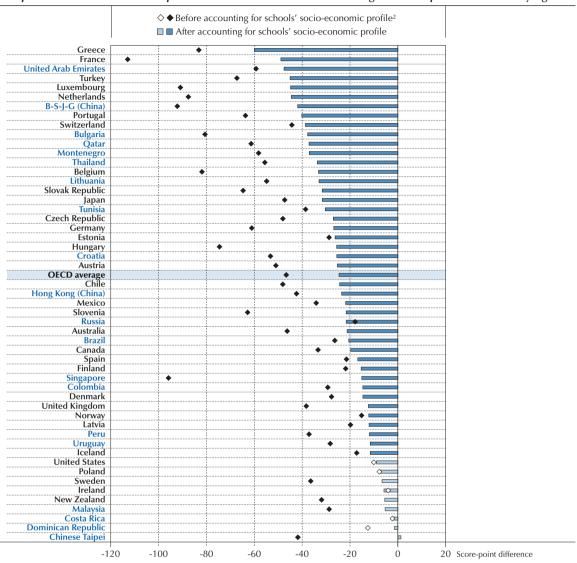
REPERCUSSIONS OF BULLYING ON OTHER ASPECTS OF STUDENTS' WELL-BEING

Being bullied, especially being constantly bullied, is stressful for anyone. While research on both animals and humans shows that moderate stress can have beneficial effects, chronic exposure to high levels of stress can be detrimental to both psychological and physical health (Rivara and Le Menestrel, 2016). Prolonged exposure to the stress hormone cortisol can alter parts of the brain architecture, such as the amygdala and the hippocampus, that are critical for regulating emotions. These negative effects are more problematic for young people because the body's system for handling stress is particularly sensitive during this period of development (McEwen and Morrison, 2013; Rivara and Le Menestrel, 2016).



Figure III.8.6 ■ Prevalence of bullying and school performance in science

Score-point difference in science performance between schools with high and low prevalence of bullying¹



^{1.} Schools with a high prevalence of bullying are those where more than 10% of students are frequently bullied. Schools with a low prevalence of bullying are those where 5% of students or less are frequently bullied. A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying among all countries/economies. See Annex A1 for information on the index of exposure to bullying.

Note: Statistically significant values are marked in a darker tone (see Annex A3).

Countries and economies are ranked in ascending order of the score-point difference in science performance between schools with a high prevalence of bullying and schools with a low prevalence of bullying, after accounting for schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Table III.8.10.

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Figure III.8.7 indicates a negative association between being frequently bullied and several indicators of students' well-being, specifically students' sense of belonging at school, life satisfaction, expectations to remain in education, and engagement with school and confidence.

Students who are frequently bullied may feel constantly insecure and on guard, and have clear difficulties finding their place at school (Rivara and Le Menestrel, 2016). They tend to feel unaccepted and isolated and, as a result, are often withdrawn. As a way to reduce their exposure to bullies, they often forego making friends or miss out on taking chances that could help them become better integrated with their schoolmates (Juvonen and Graham, 2014). On average across OECD countries, about 42% of students who are frequently bullied – but only 15% of students who are not frequently bullied – reported feeling like an outsider at school (Figure III.8.8).

^{2.} The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

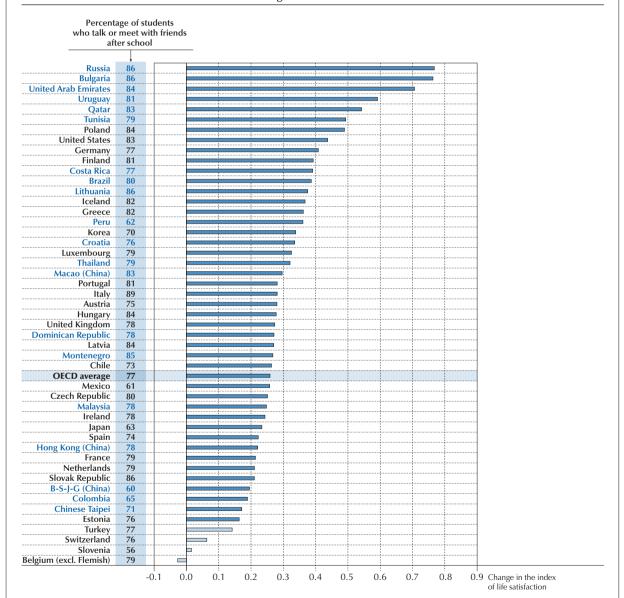


Box III.8.2 Socialising with friends outside of school

Relationships with peers strongly affect teenagers' well-being. Adolescents develop friendships that are more intimate, exclusive and constant than in earlier years. Frequent and positive interactions with friends may give students a greater sense of belonging at school, and be a source of happiness and self-esteem (Goodenow and Grady, 1993). Adolescents who do not have friends are often depressed (Parker and Asher, 1993). Having healthy relationships with peers can also motivate young people to study harder in school, participate in sports, volunteer and engage in other productive activities.

Figure III.8.7 ■ Life satisfaction and socialising with friends

Change in life satisfaction associated with talking or meeting with friends after school, after accounting for student characteristics¹



^{1.} Student characteristics include the PISA index of economic, social and cultural status (ESCS) and gender. **Note:** Statistically significant values are marked in a darker tone (see Annex A3).

Countries and economies are ranked in descending order of difference in life satisfaction associated with talking with friends after school. Source: OECD, PISA 2015 Database, Tables III.8.21 and III.8.23.

StatLink http://dx.doi.org/10.1787/888933471615

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But peers can also have adverse effects on adolescents, such as when the social group does not value school or education, or when it disparages the drive to achieve at school (Berndt, 1999). Peer pressure may also encourage adolescents to drink, smoke, use drugs, vandalise or steal (Bauman and Ennett, 1994).

PISA 2015 asked students whether they meet or talk with friends before or after school. The questionnaires that elicited this information did not ask students to give details about the number or gender of their friends, or about the duration, frequency and types of interactions students have with their friends.

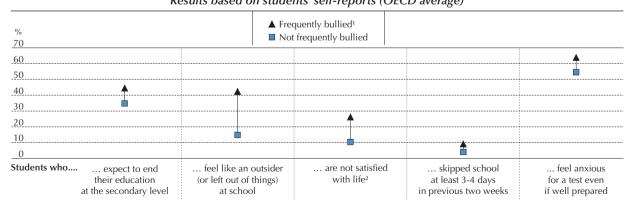
Some 77.5% of students reported that they meet or talk with friends after school and 57.7% of students reported that they interact with friends before school, on average across OECD countries (Table III.8.21). In Italy and Israel, close to 90% of students reported that they meet or talk with friends after school, while in Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]") and Slovenia, the share is closer to 60%. In the majority of countries, girls were more likely than boys to report that they socialise with friends, but the gender difference in the share of students who reported so is 10 percentage points or less across all countries and economies. In most countries and economies, students with an immigrant background were less likely than students without an immigrant background to report that they interact with friends before or after school (Table III.8.22).

Students who meet or talk with friends either before or after school tended to report higher levels of life satisfaction. On average across OECD countries, students who talk with or meet friends after school reported a level of life satisfaction around 0.3 point higher on the life satisfaction scale (which ranges from 0 to 10) than students who do not talk with or meet friends after school. In Bulgaria, the Russian Federation and the United Arab Emirates, the difference between the two groups is larger than 0.7 point (Figure III.8.7).

Stressful life events, like bullying, can lead to depression, anxiety and symptoms of other psychological problems, such as sleep disorders (Swearer and Hymel, 2015). Victims of severe bullying think more often about suicide (Ybarra et al., 2006). Figure III.8.8 shows that 26% of frequently bullied students reported relatively low satisfaction with life (a value less than or equal to 4 on a scale from 0 to 10). Only around 10% of students who are not frequently bullied reported such low satisfaction with their life. In Korea, Turkey and the United Kingdom, more than one in three frequently bullied students reported low satisfaction with life (Table III.8.15). This relationship does not seem to be affected by the gender of the student, his or her socio-economic status or the socio-economic profile of the school. Victims of bullying are also more likely to experience schoolwork-related anxiety, either because anxious individuals are easy targets of bullies or because negative results at school are more worrying for students who are picked on by their peers (Berry and Hunt, 2009). Table III.8.15 shows that, in the majority of countries and economies, frequently bullied students are more likely than students who are not frequently bullied to report feeling anxious before a test, even if well prepared.

Figure III.8.8 • Relationship between being frequently bullied and other student outcomes

*Results based on students' self-reports (OECD average)



^{1.} A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying among all countries/economies. See Annex A1 for information on the index of exposure to bullying.

Note: All differences between frequently bullied and not frequently bullied students are statistically significant (see Annex A3).

Source: OECD, PISA 2015 Database, Table III.8.15.

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^{2.} A student is classified as "not satisfied" with life if he or she reported between 0 and 4 on the life-satisfaction scale. The life-satisfaction scale ranges from 0 to 10.



Exposure to severe bullying can affect not just how young people feel but also how they behave. The behavioural consequences of bullying others and being bullied include aggression, misbehaviour, irresponsible risk-taking, and the use of illegal substances (Kretschmer et al., 2016). Victims of bullying often decide to stay out of school. On average across OECD countries, about 9% of frequently bullied students (compared with less than half of that percentage among students who are not frequently bullied) reported that they had skipped school more than three or four times in the two weeks prior to the PISA test (Figure III.8.8)¹.

Bullied students are also more likely to develop negative expectations about the future. If children feel anxious about their social life at school, they might consider leaving formal education altogether. Figure III.8.8 shows that around 45% of frequently bullied students (compared with 35% of students who are not frequently bullied) expect to leave school at the end of their secondary education. This relationship is more strongly mediated by the socio-economic profile and performance of students and schools than the other relationships shown in Figure III.8.8 (Table III.8.15).

THE ROLE OF SCHOOLS, TEACHERS AND PARENTS IN ENDING BULLYING

Teachers and school staff are in a unique position to promote healthy relationships among students, intervene in instances of bullying and, with parents, help bullies and their victims learn how to build, or re-build, strong and healthy relationships with their peers (Pepler et al., 2006). Protecting children from abuse is the responsibility of all the adults in their lives, primarily parents and teachers. Close communication among these adults is essential for conveying consistent messages and supporting children in all the contexts in which they live, work and play. Young people who are more connected with their teachers and parents are less likely to be bullied; and even if they are bullied, they are less likely to develop crippling psychological problems as a result (Morin et al., 2012).

Educators can reduce aggression and victimisation by creating a climate of support and empathy both in and outside of the classroom (Espelage et al., 2013; Goldweber, Waasdorp and Bradshaw, 2013; Johnson, 2009). A school's disciplinary structure and adult support of students are the two key components of a positive school climate to counter bullying (Gregory and Cornell, 2009). Disciplinary structure refers to the idea that school rules are perceived as strict but fairly enforced. Adult support refers to students' perceptions that their teachers and other school staff members treat them with respect and want them to be successful (Konold, 2014). Schools with a low incidence of physical and relational violence tend to have more students who are aware of school rules, believe that these rules are fair, and have positive relations with their teachers (Gregory and Cornell, 2009).

Box III.8.3 Anti-bullying programmes: How they work and evidence of their effectiveness

School-based bullying-prevention programmes run the gamut from putting in place preventive measures to emphasising monitoring and surveillance in schools. Many anti-bullying programmes involve a whole-of-school approach, with co-ordinated engagement among teachers, students and parents. Several of these holistic programmes include training for teachers on bullying behaviour and how to handle it, anonymous surveys of students to monitor the prevalence of bullying, and a strategy to provide information to and engage with parents (Smith, Pepler and Rigby, 2004).

The Olweus Bullying Prevention Programme, first developed and implemented in Norway, has greatly influenced the design of anti-bullying strategies around the world. This programme includes meetings among teachers, improved supervision, surveys of students, parent-teacher meetings, role-playing among students to learn how to handle bullies, gathering and disseminating information about bullying for students and parents, developing class rules against bullying, and talking with bullies and their parents without imposing punitive measures (Ttofi and Farrington, 2009). Other prevention programmes include KiVa, which was developed in Finland and is now implemented in Belgium, Estonia, Hungary, Italy, the Netherlands and Sweden (Salmivalli, Kärnä and Poskiparta, 2011; Salmivalli, Kaukiainen and Voeten, 2005), the Kia Kaha programme, developed in New Zealand (Raskauskas, 2007), and the Respect programme in Norway (Ertesvåg and Vaaland, 2007). Castile and Leon (Spain) recently launched an anti-bullying strategy that co-ordinates the plans and actions of all public and private institutions involved in the fight against bullying (see box III.14.4).

The majority of studies evaluating bullying-prevention programmes find a positive impact (Evans, Fraser and Cotter, 2014; Ferguson et al., 2007; Smith, Pepler and Rigby, 2004; Ttofi and Farrington, 2010, 2009). But in most cases,

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the impact is modest. Randomised control trials found that the KiVa programme had a significant impact on reducing the incidence of bullying, and also made a difference in students' attitudes toward bullies and victims (Nocentini and Menesini, 2016; Salmivalli, Kärnä and Poskiparta, 2011).

After comparing the impact of the individual components of anti-bullying programmes, Ttoffi and Farrington (2009) found that training and information for parents, better supervision in the playground, improved disciplinary measures, working with peers, and classroom management are the most effective measures against bullying (Ttofi and Farrington, 2009). Programmes also need to be long-term, and frequently monitored and evaluated to be effective (Ttofi and Farrington, 2010). And programmes that combine systematic monitoring and targeting of high-risk youth tend to be more effective than programmes that do not include these actions (Ferguson et al., 2007; Smith, Pepler and Rigby, 2004).

Although these programmes may not eliminate bullying entirely, appropriate interventions can change the norms, attitudes towards and perceptions of bullying among students, teachers and parents. Over the medium and long term, these changes in attitude can help to mitigate the harmful effects of bullying and being bullied.

One of the common factors related to a lower incidence of bullying and victimisation is class and school discipline (Cornell and Huang, 2016; Gregory et al., 2010). When they work in a structured and orderly environment, students feel more secure, become more engaged with school work, and are less inclined to engage in high-risk behaviours (Kuperminc, 2001). Figure III.8.9 shows that, on average across OECD countries, the proportion of frequently bullied students is about 7 percentage points larger in schools with a poor disciplinary climate (worse than the country average) than the proportion in schools with a good disciplinary climate (better than the country average), before accounting for students' and schools' socio-economic profile (the difference is equal to 6 percentage points after accounting for socio-economic background). The relationship between bullying and disciplinary climate at school is particularly strong in Macao (China), the Slovak Republic and the United Arab Emirates, before accounting for schools' socio-economic profile.

Perceptions of teacher unfairness might lead some children to believe they have the right to offend others as a way of exercising power. Students who have been humiliated or have had their self-confidence undermined often try to regain it by asserting their superiority over more vulnerable groups. Figure III.8.10 shows that, on average across OECD countries, students who attend schools with pervasive perceptions of teachers' unfair behaviour (perceptions of unfairness in the school are above the national average) are 12 percentage points more likely to be frequently bullied than students in schools where these perceptions are not as pervasive (perceptions of unfairness are below the national average). This could indicate that bullying is more frequent in schools where students do not perceive their teachers as effective in transmitting norms of respectful and non-violent behaviour. This relationship is only partly related to other characteristics of the schools, such as average performance or socio-economic profile. The association between perceptions of teacher unfairness in the school and student victimisation by bullies is particularly strong (over 10 percentage points, after accounting for student and school characteristics) in Brazil, Chile, the Czech Republic, the Dominican Republic, Greece, New Zealand, the Slovak Republic, Slovenia, Thailand and Tunisia. Teachers might help to limit bullying by being models of fair behaviour and respect (Veenstra et al., 2014).

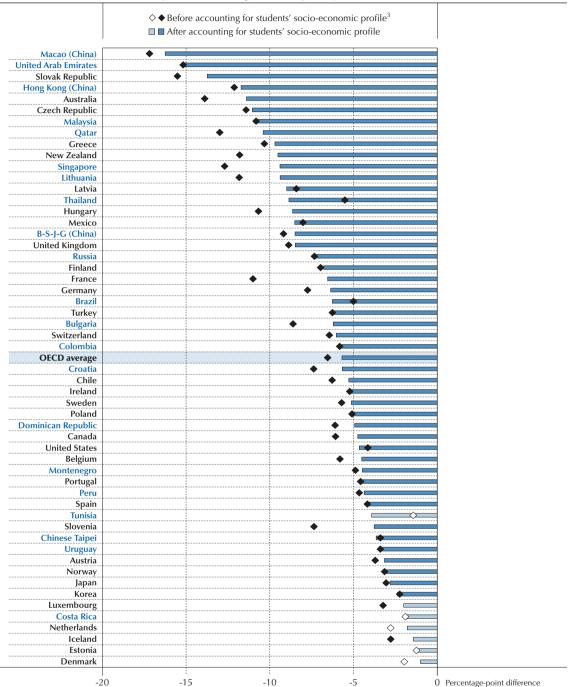
While teachers are at the frontlines of implementing anti-bullying strategies, many are not aware of the frequency and severity of bullying in their school, and are not sufficiently prepared to intervene to prevent bullying (Veenstra et al., 2014). On average across the countries and economies that participated in the 2013 OECD Teaching and Learning International Survey (TALIS), 13% of lower secondary teachers (40% in Japan and 30% in Korea) reported a high need for professional development activities in the area of classroom management (OECD, 2014). Targeted training for school personnel can improve their bullying-intervention skills and their self-efficacy in working with students to prevent bullying (Duy, 2013; Gorsek and Cunningham, 2014).

PISA does not include data on teachers' participation in bullying-prevention programmes. But in the 19 countries and economies that distributed the teacher questionnaire, teachers reported whether their initial education or their professional development activities included training on student behaviour and classroom management. On average across these 19 countries and economies, 70% of students have teachers who reported that they attended courses during initial teacher training on how to manage students' behaviour. On average, only 42% of students have teachers who participated in professional development activities (i.e. additional training) focused on addressing behavioural issues. In Australia, Germany and Chinese Taipei, teachers in disadvantaged schools are more likely than teachers in advantaged schools to participate in these types of professional development activities (Table III.8.20).



Figure III.8.9 ■ Exposure to bullying and school's disclipinary climate

Estimated difference in the percentage of frequently bullied students¹ between schools with positive and negative disciplinary climate²



- 1. A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying among all countries/economies. See Annex A1 for information on the index of exposure to bullying.
- 2. Schools with positive (negative) disciplinary climate are those whose average index of disciplinary climate is statistically higher (lower) than the country/economy average.
- 3. The socio-economic profile is measured by the PISA index of economic, social and cultural status (ESCS).

Note: Values that are statistically significant are indicated in a darker tone (see Annex A3).

Countries and economies are ranked in ascending order of the difference in the percentage of bullied students between schools with a positive disciplinary climate and schools with a negative disciplinary climate, after accounting for students' and schools' socio-economic profile.

Source: OECD, PISA 2015 Database, Table III.8.16.

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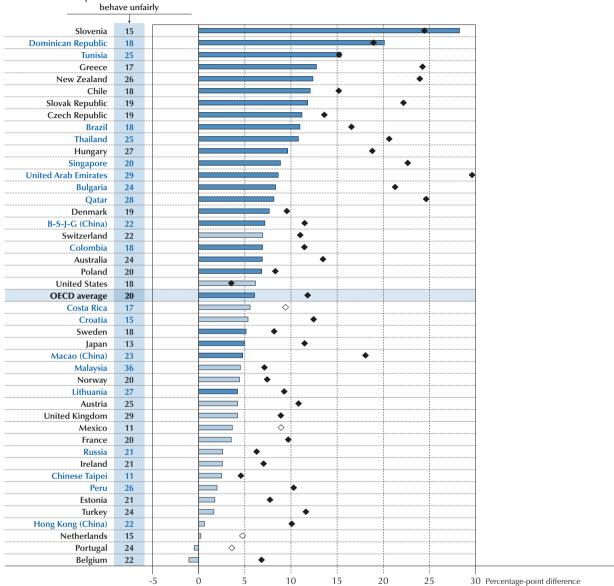
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Figure III.8.10 • Students' exposure to bullying and perceptions of teachers' unfairness

Difference in the percentage of frequently bullied students¹ between schools with pervasive/not pervasive student perceptions of teachers' unfair behaviour²

- ♦ Before accounting for student and school characteristics³
 After accounting for student and school characteristics
- Percentage of students who perceive that their teachers behave unfairly



- 1. A student is frequently bullied if he or she is in the top 10% of the index of exposure to bullying among all countries/economies. See Annex A1 for information on the index of exposure to bullying.
- 2. Perception of teachers' unfair behaviour is defined by a student reporting that "Teachers discipline [him/her] more harshly than other students", that "Teachers ridicule [him/her] in front of others" or that "Teachers say something insulting to [him/her] in front of others" at least a few times a month. Schools with high (low) percentages of frequently bullied students are those where the percentage of students who perceive that teachers treat them unfairly are higher (lower) than the national average.
- 3. Student and school characteristics include gender, the PISA index of economic, social and cultural status (ESCS) at the student and at the school levels, and science performance at the school level.

Note: Statistically significant differences are shows in a darker tone (see Annex A3).

Countries and economies are ranked in descending order of the difference in the percentage of frequently bullied students between schools with pervasive perceptions of teachers' unfair behaviour and those where perceptions of teachers' unfair behaviour are not pervasive, after accounting for student and school characteristics.

Source: OECD, PISA 2015 Database, Table III.8.17.

StatLink http://dx.doi.org/10.1787/888933471640

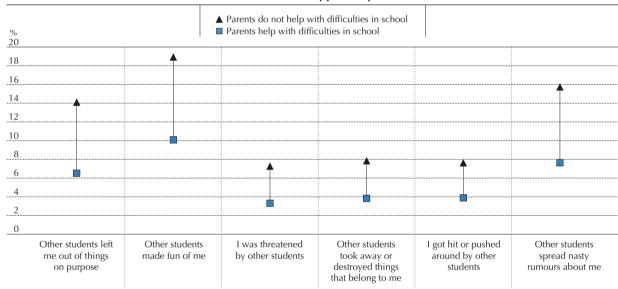


THE ROLE OF PARENTS IN REDUCING THE NEGATIVE IMPACT OF BULLYING

Stable emotional support from parents – including listening, offering praise, affection, trust and respect – is particularly important for adolescent victims of bullying (Amato, 1994; Gorman-Smith, Henry and Tolan, 2004; Leadbeater, Hoglund and Woods, 2003). Research has shown that caring parents can reduce the stress and pain of students who have been bullied (Rivara and Le Menestrel, 2016). Conversely, a home environment where parents unduly criticise their children, impose few rules, mistreat their children or are violent towards each other has been linked to greater incidence of bullying and victimisation (Holt, Kantor and Finkelhor, 2008).

In PISA 2015, students were asked to report the degree of emotional support they receive from their parents. On average across OECD countries, around 91% of students reported that their parents support them when facing difficulties at school (Table III.9.18). Disadvantaged students were less likely to report so), possibly because parents who are financially stressed are less likely to have the time, and the emotional and psychological presence to be fully supportive. As Figure III.8.11 illustrates, across OECD countries, the average share of students who reported being frequently bullied is substantially larger among students who also reported that their parents are not emotionally supportive.

Figure III.8.11 **Exposure to bullying and parental support**Percentage of students who are bullied a few times a month or more among students with and without supportive parents¹



^{1.} Students with (without) supportive parents reported that they "agree" or "strongly agree" ("disagree" or "strongly disagree") that their parents help them when they have difficulties in school.

Note: All differences between students with and without supportive parents are statistically significant (see Annex A3).

Source: OECD, PISA 2015 Database, Table III.8.18.

StatLink http://dx.doi.org/10.1787/888933471653

Schools can help parents in these efforts by including them in prevention strategies. An open line of communication with teachers and school staff can help parents acquire a greater awareness of the problem and take action. Parents of bullies are not always aware that their child is bullying others (Holt, Kantor and Finkelhor, 2008), and some victims of humiliating treatment are often reluctant to talk about the problem with their parents. On average across 15 countries and economies with available data, only 46% of the parents of frequently bullied students reported that they had exchanged ideas on parenting, family support, or the child's development with teachers over the previous academic year (around 41% of students who are not frequently bullied have parents who had engaged in such discussions). In France and Ireland, less than 30% of parents whose children are frequently bullied had exchanged such ideas and information with teachers (Table III.8.19).



What these results imply for policy

- Bullying occurs frequently in all countries and economies, and has long-lasting consequences on students'
 well-being. Policy makers need to invest more resources in sharing and implementing effective anti-bullying
 strategies.
- Teachers can do much to reduce bullying, but they need to become more aware of the gravity of non-physical
 forms of bullying. They also need to communicate to students that they will not tolerate any form of bullying,
 and act as role models in the classroom. Incorporating bullying-prevention modules in teacher training is
 essential.
- School leaders, teachers and students need to work together in the classroom to reduce the incidence of bullying. Whole-of-school prevention and intervention strategies can make everyone responsible for students' well-being by teaching students and teachers strategies to support victims and communicate with bullies, and by changing classroom norms.
- Bullying-prevention programmes need to make parents aware of their critical role in helping their children become agents to prevent, rather than bystanders to, all forms of bullying.



Note

1. The fact that victims of bullying are more likely to skip school might imply that PISA, as other surveys undertaken in schools, underestimate the actual percentage of students that are victims of bullying.

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