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ENDING VIOLENCE IN SCHOOLS: AN INVESTMENT CASE

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EXECUTIVE SUMMARY

Ending violence in and around school (VIAS) is essential to reap the benefits from education and ensure children's well-being. Receiving an education of good quality is the right of every child, as enshrined in the Convention on the Rights of the Child. Education plays a unique role in promoting respect for human rights, and contributing to safe and inclusive societies that do not condone the use of violence, but rather provide children with the skills they will need as adults to find peaceful solutions to conflicts. Education also plays a fundamental role in countries' ability to achieve the targets set forth under the Sustainable Development Goals¹. But in addition, in today's fast changing world, education is the foundation of countries' future economic development. It drives human capital wealth (the value of the future earnings of the labor force), which itself accounts for two thirds of the changing wealth of nations². Unfortunately, VIAS remains widespread in developing and developed countries alike, preventing children from learning and leading them to drop out of school³. Failing to prevent VIAS will affect not only children today, but also the members of their future families, their communities, and societies as a whole. Due to the COVID-19 pandemic, over the last year schools were closed for substantial periods of time in many countries, but several of the factors that may lead to higher violence against children overall and violence on schools in particular have been exacerbated. The need to end violence in school is even more pressing today.

HIGH PREVALENCE OF VIOLENCE IN SCHOOLS

VIAS is a threat to both schooling and learning, as well as to children's well-being, health, and future earnings as adults. The World Health Organization (WHO) has defined violence as "the intentional use of physical force or power, threatened or actual, against a person or group that results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation."⁴ Violence is the result of an abusive use of force. The harm can be actual or threatened. It can lead to injury or death, but also to trauma or other mental health symptoms. Violence is often multidimensional, as individuals are often subjected to multiple forms of violence and in multiple locations. VIAS includes but is not limited to child

victimization, physical and psychological exploitation, cyber victimization, bullying⁵, fights, and sexual violence. It also includes violence by teachers such as corporal punishment, with potential negative impacts⁶. Overall, VIAS has major effects on children's well-being and health, and through reduced attainment and achievement, it reduces earnings and productivity in adulthood.

Violence remains ubiquitous in schools. Table ES1 provides a summary of estimates of violence in schools from survey data from multiple countries. According to these data, more than one in three children are subjected to physical violence, and almost one in three are bullied. The prevalence of sexual violence is much lower, but likely underestimated especially when the topic remains taboo. Girls and boys experience VIAS in different ways. Apart from differences in exposure to sexual violence, girls are more likely to experience verbal and emotional abuse whereas boys are more likely to be physically abused. Unfortunately, data on sexual harassment which affects mostly girls are not widely available. VIAS is an issue in virtually all countries of the world even if across regions, sub-Saharan Africa, South Asia, and the Middle East and North Africa tend to have higher prevalence rates. Globally, VIAS is likely to affect well above a half billion children each year (including those in primary schools).



¹ Wodon et al. (2018).

² Lange et al. (2018).

³ UNICEF (2018). See also UNESCO (2019). On violence against children more generally, see Hillis et al. (2016). See also UNICEF (2014), Office of the SRSG on Violence against Children (2016), Hillis et al. (2016), UNICEF (2017, 2019), Know Violence in Childhood (2017), and UNESCO (2019).

⁴ Krug et al. (2002), based on WHO Global Consultation on Violence and Health (1996).

⁵ Bullying is defined as repeated aggression (physical, verbal or psychological) over a prolonged period of time among peers who have an imbalance of power.

⁶ Naz et al. (2011).

Table ES.1: Prevalence of Violence in Schools in Multi-country Surveys (%)

	GSHS	HBSC	PISA	VACS	DHS
GSHS, HBSC, and PISA surveys					
Attacked in last 12 months	37.8	-	-	-	-
Involved in fight in last 12 months	27.6	31.2	-	-	-
Injured in last 12 months	31.3	44.5	-	-	-
Injured from fight	1.5	1.8	-	-	-
Bullied in last 30 days	29.5	29.0	-	-	-
Others left me out of things	-	-	36.8	-	-
Students made fun of me	-	-	42.7	-	-
Threatened by other students	-	-	23.8	-	-
Others destroyed my things	-	-	26.5	-	-
Hit by other students	-	-	23.4	-	-
Nasty rumors about me	-	-	33.5	-	-
VACS and DHS surveys					
Physical violence in schools	-	-	-	28.7	-
Emotional violence in schools	-	-	-	3.5(*)	-
Sexual violence in schools	-	-	-	2.8(*)	1.5(*)

Source: Authors' estimates.

Note: (*) The prevalence of emotional and sexual violence in schools in VACSs and DHSs may be underestimated.

Corporal punishment by and corruption among teachers and school officials (which may involve threats of violence against students) also remain widespread. Some 67

countries still do not have legislation banning corporal punishment in schools⁷. In Francophone Africa, data on corporal punishment from PASEC suggest that more than a third of teachers in sixth grade of primary school use corporal punishment in the classroom, leading to almost two-thirds of students being beaten by teachers. Afrobarometer data for three dozen African countries suggest that one in five individuals are affected by petty corruption, which may lead to bribes, gifts, or favors, but may also in some cases to sexual violence against children.

The various forms of violence often do not occur in isolation. Instead, they tend to reinforce each other.

Children are often victims of violence in separate locales, at school but also at home and in the community. This feeds into a self-reproducing cycle⁸ or poly-victimization, which has negative multiplier effects on children's wellbeing and capacity to learn, leading to higher risk of lasting physical, mental and emotional harm. Policymakers and stakeholders working in schools must take poly-victimization into

account to respond to multiple layers of risks for children and target the most vulnerable children⁹.

The COVID-19 pandemic is likely to have exacerbated some of the factors that lead to violence against children in general, and violence in schools in particular.

Many individuals and households are under stress due among others to social isolation, losses in employment and income, and illnesses or death from the pandemic. Initial predictions of the economic impacts of the crisis were dire¹⁰ for both developed¹¹ and developing countries¹². Over time many projections were further revised downward, and while a recovery is underway, the consequences of the crisis have been severe. Estimates suggest that the crisis may lead to an increase in the number of poor people of 150 million¹³. Of those, about half are children. According to the World Food Programme, the number of people suffering from acute hunger may have doubled¹⁴. Student learning suffers during recessions¹⁵, and estimates suggest that learning poverty – the share of children not able to read and understand a simple text, may increase by 10 percentage points under a pessimistic scenario¹⁶.

⁷ See <https://endcorporalpunishment.org/schools/>.

⁸ Wilkins et al. (2018).

⁹ Finkelhor et al. (2011).

¹⁰ International Monetary Fund (2020).

¹¹ For Europe, see European Commission (2020).

¹² For sub-Saharan Africa, see World Bank (2020a).

¹³ World Bank (2020'b).

¹⁴ Food Security Information Network (2020). School lunch programs were also affected. These programs serve many children (World Food Programme, 2013, 2020).

¹⁵ Shores and Steinberg (2019).

¹⁶ Azevedo (2020).

For schooling, girls are especially likely to be affected, leading to higher risks of child marriage¹⁸ with major implications for the rest of their life¹⁹. More generally, children from vulnerable groups, including not only girls and those in extreme poverty, but also children with disabilities, refugees and internally displaced persons, and other groups are especially at risk²⁰.

LARGE ECONOMIC COSTS OF VIOLENCE IN SCHOOLS

The cost of VIAS in lost future lifetime earnings could be of the order of US\$11 trillion. In absolute value, this estimate is slightly higher than other estimates available in the literature, but it corresponds to a lifetime cost while most estimates in the literature are annual cost. The estimate of US\$11 trillion in lost human capital wealth represents slightly more than one percent of the baseline level of human capital wealth globally. The estimate consists of two separate values:

- **Children learning less in school:** Based on regression analysis using data from the PISA and PASEC international student assessments, ending violence in school could result in aggregate gains in learning of about two percent versus baseline values²¹. These aggregate effects may seem limited, but at the margin, the effects for students affected by violence are often larger than the potential impact of variables capturing

the socio-economic background of the student, a disability, or factors such as teacher absenteeism, the level of education of teachers, or selected characteristics of schools. Accounting for the particular level of violence in school observed in each country and the share of human capital wealth attributed to education in each country, human capital wealth could have been be higher by US\$ 5.7 trillion without violence in school.

- **Children dropping out of school:** In a few countries where household surveys include VIAS as one of the possible reasons for dropping out of school, VIAS accounts typically for part of drop-outs at the primary or secondary levels. Based on available data for a few countries, the assumption is that across all countries, five percent of drop-outs may be due to VIAS. If such drop-outs could have been avoided, and if children would have completed their secondary education, human capital wealth could have been higher by US\$ 3.9 trillion.

The combined loss from the potential impact of VIAS on educational achievement and attainment is valued at US\$ 9.6 trillion in 2014. Given population growth and gains in standards of living between 2014 and 2019, that value is scaled up by the ratio of global GDP in current US\$ in both years²², leading to an estimated loss in human capital wealth in 2019 (pre-COVID) of just under US\$ 11 trillion. This estimate is only an order of magnitude and a

Table ES.2: Potential Loss in Human Capital Wealth Due to Violence in School

	Total Cost (US\$ trillions)
Human capital wealth in 2014	736.9
Losses due to children not learning as much	
Loss in human capital wealth for countries included in PISA	4.7
Scaled-up losses for all countries with measures of human capital wealth	5.7
Losses due to children dropping out of school	
Potential gain in human capital wealth with universal secondary education	77.3
Share of drop-outs due to violence in school	5%
Potential gain from ending school drop-outs due to violence in school	3.9
Combined estimate of losses	
Combined losses from lack of learning and children dropping out of school	9.6
Potential gain from ending violence in school as share of human capital wealth	1.3%
Scaling-up factor from 2014 to 2019	
Cost of VIAS in 2019 (using ratio of global GDP between 2019 and 2014 at 1.1)	10.6

Source: Authors' estimates.

¹⁷ See UNDP (2015), Onyango et al. (2019), and Bandiera et al. (2019). See also World Bank (2020g) for a review, as well as Asfaw (2018) on Ethiopia, Dureya et al. (2007) and Cerutti et al. (2019) on Brazil, and Lim (2000) on the Philippines.

¹⁸ Wodon et al. (2016, 2017); Kassa et al (2019).

¹⁹ Wodon et al. (2018).

²⁰ World Bank (2020c).

²¹ Our findings confirm previous results from the literature based on country-level analysis and qualitative studies suggesting a negative impact of violence in schools in learning apart from its impact on schooling.

²² GDP per capita and human capital wealth are highly correlated.

range of potential costs could be provided using different assumptions. The actual costs for the two impacts included in Table ES.2 could be lower or higher.

These estimates are approximations only suggesting orders of magnitudes, but they likely represent lower bounds.

These estimates are nothing more than broad orders of magnitude – they are not meant to be precise or definitive given the many assumptions involved. But they appear to be of a reasonable order of magnitude in percentage terms from base values when compared to more detailed country level estimates of losses in earnings due to VIAS. However, the estimates are likely to be a lower bound since they do not factor other costs of VIAS such as health-related costs²³, nor do they account for all the benefits that would arise from ending VIAS in terms of gains in standards of living.

OTHER NEGATIVE WIDE-RANGING EFFECTS OF VIOLENCE IN SCHOOLS

Apart from leading to losses in learning and drop-outs, VIAS is highly detrimental for students' experience in school as well as their health and well-being. If VIAS were eliminated, this would have potentially large effects for a wide range of indicators of health and well-being. For example, for perceived health, surveys ask questions on difficulties sleeping, having headaches, stomach-ache, or back-ache and a self-assessment of health. For risky behaviors, questions are asked about whether the children have ever smoked, used alcohol, drug or cannabis, or had sex. Finally, for psychological well-being, questions are asked about whether the children ever considered suicide, planned to commit suicide, or attempted to commit suicide. Questions are also available on whether children are feeling low, irritable, nervous, or dizzy. In virtually all cases, experiencing VIAS is associated with worse indicators after controlling for other factors that may affect these indicators. Some of the largest effects are observed for the probabilities of feeling bad about one's health (reduction of 6.1 percentage points if VIAS were eliminated), trusting other people (increase by 6.0 points), having suicidal thoughts (reduction by 5.3 points), having sex before the age of 18 (reduction by 4.9 points), and feeling close to one's biological father (increase by 4.9 points). In proportional terms from base values, the largest effects

are observed for suicidal thoughts and early childbearing (having a child before 18).

Taking into account the population of students enrolled in secondary schools in the various countries, ending violence in school would have beneficial effects for tens of millions of students.

Simulations suggest that ending violence in secondary schools could reduce the number of students who (typically over the past 12 months) (1) have difficulties sleeping by 24 million; (2) miss school by 20 million; and (3) consider suicide by 15 million. Many of these effects could be observed for children in primary school as well. In that case, the number of children affected could be up to two and a half times larger than those estimates. Ending violence in schools could also reduce the number of children in secondary schools who (1) have sex by 26 million; (2) drink alcohol by 26 million; (3) smoke by 17 million; and (4) use drugs by 8 million. Finally, when girls drop out of school due to violence in school, this increases the likelihood that they will marry as children or have early pregnancies. This can have major negative consequences for the rest of their life, not only in terms of lower earnings in adulthood, but also for their maternal health and the health of their children, their ability to make decisions within their household, and the risk of intimate partner violence.

COMPLEX FACTORS LEADING TO VIOLENCE AND PROMISING INTERVENTIONS

Ending VIAS requires multifaceted interventions, but promising interventions have high benefits to costs ratios. Risk factors for violence include factors at the levels of the individual, the household, the community, and society. The accumulation of risk factors often explains why an individual behaves more violently or is more prone to be victimized than others. Instead of looking for a single best intervention that would be most effective in preventing violence, it often makes sense to combine interventions that can both mitigate the most salient risk factors and enhance relevant protective factors in a given context and for a specific group. There is no unique way to categorize programs to prevent VIAS, but a lifecycle approach is useful because risk factors leading to VIAS evolve over time in a child's life.

²³ On previous estimates at the country, regional, or global levels, see Perezniето et al. (2010), Fang et al. (2012), Perezniето et al. (2014), Fearon and Hoeffler (2014), Fang et al. (2015), Fang et al. (2015), Fang (2015), McCarthy et al. (2016), Fang et al. (2017), UNICEF (2019), and Deloitte Access Economics (2019).

²⁴ School safety issues at the school level can compound each other. For example poor infrastructure and lack of basic services at schools is associated with increases in violence. Community factors, such as conflict/fragility can also influence school level relationships and contribute to exclusion and negative behaviors such as bullying/violence.

In particular:

- **Cost-benefit analyses suggest that promising interventions have high benefits to costs ratios.** While these ratios are sensitive to assumptions used in the analyses, results suggest that reducing violence in and around schools is a smart economic investment. While most of the available analyses are from developed countries, programs should generate high benefits in developing countries as well if one presumes that results of a similar magnitude could apply.
- **Early childhood interventions are essential to prevent VIAS and often have high returns.** Cost-benefit analyses have been implemented mostly for center-based interventions (typically preschools, although many programs also include home visiting, parenting advice, health and nutrition services, and referrals for social services)²⁴. Such programs tend to have high returns on investment, with benefit to cost ratios ranging from 2.04 to 16.14. Some of the more recent programs do not have as high benefits to cost ratios, but this may be due in part to the fact that some of the benefits from these programs in adulthood could not yet be measured.
- **In primary schools, programs helping children improve their social and emotional skills also have high returns.** A recent synthesis of cost-benefit analyses for these types of programs suggest benefit to cost ratios ranging from 3.46 to 13.91 across interventions in baseline scenarios²⁵.
- **In secondary schools, a key area of focus should be to reduce bullying.** Reviews suggest that intensive and long-lasting programs are needed to change behaviors, with parental sessions contributing to success²⁶. Cost-benefit analyses have been conducted especially for the Olweus Bullying Prevention Program and the KiVa anti-bullying program. For the Olweus program, a benefit-cost ratio of 6.94 is suggested when start-up costs are not included²⁷. For KiVa, analyses suggest benefit-cost ratios well above one, with differences depending on countries²⁸.

So-called whole school approaches can help reduce VIAS at a limited cost. Engaging with the entire school community is beneficial. A whole school approach uses

multiple strategies to develop a common vision and shared values and rules for the school, and works through the curriculum, teacher training, parental engagement, and student learning towards a safe and inclusive school climate and respectful school values. One example is the Good School Toolkit (GST) in Uganda. Evaluations suggest that after 18 months of implementation, the program reduced the risk of physical violence by teachers and school staff against students by 42 percent; halved the number of teachers who reported using physical violence against students; and improved students' connectedness and sense of safety and belonging with their school. The program also increased teachers' satisfaction in their role at school and increasing students' wellbeing and sense of safety at school²⁹. Importantly, if the GST program were implemented at scale, unit costs for implementation would be low³⁰.

Supporting teachers to enhance their skills in positive discipline and classroom management is also effective.

Providing teachers with skills to improve their relationship with students and manage behaviors lessens disruptive and aggressive behaviors in the classroom and enhance prosocial behaviors later in life. By contrast, punitive interactions tend to feed a vicious circle of violence, delinquency, and further exclusion. The Global Initiative to End All Corporal Punishment of Children and the WHO handbook on school violence prevention³¹ provide useful resources on positive discipline for teachers and schools. When teachers and the entire school community understand that respect and trust are key pillars for child's healthy development and that corporal punishment is not only counterproductive but negatively impacts a child's learning, the school climate can be transformed.

Families need to be part of school programs. Engaging with parents of adolescents that display behavioral problems can yield significant results even in a relatively short period of time. But parenting programs should follow evidence-based practices, including focusing on positive discipline, positive communication, and increased bonding among family members. As with teachers, providing alternative tools and skills to caregivers in dealing with their children can help break the intergenerational cycle of violence. Effectively engaging with parents requires choosing wisely among alternative programs, as well as recruiting parents and keeping them engaged. The most challenging part is to keep parents engaged

²⁵ Dalziel et al. (2015).

²⁶ Belfield et al. (2015).

²⁷ Farrington and Ttofi (2009).

²⁸ Highmark Foundation (2018).

²⁹ See Huitsing et al. (2019) and McDavid (2017).

³⁰ Devries et al. (2015).

long enough to produce sustained behavioral change, but techniques have been developed to do so.

Engaging with communities to shift norms also matters.

The SASA! program is a good example of how norms can be challenged. SASA! means “Now!” in Kiswahili. The program employs multiple strategies to build a critical mass of engaged community members, leaders, and institutions, including local activism, media and advocacy, communication materials, and training. In comparison to control communities, SASA! communities reported a reduction in levels of violence against women of 52 percent; an increase in the share of women and men who believe it is acceptable for women to refuse sex of 28 percent; and an increase of 50 percent in the share of men and women who believe that physical violence against a partner is unacceptable³². Essentially, SASA! works with key stakeholders at the community level to deconstruct power in intimate partnerships. Another interesting program is the Bell Bajao! (Ring the Bell) campaign in India. Engaging with community is also important to ensure safe passage to schools by identifying hot spots where children may feel vulnerable, and placing adult monitors on those spots.

These various interventions and approaches have proven benefits, but they are not exhaustive in terms of the types of programs and policies that may help prevent violence in school or cope with its effects.

Guidance on how to prevent violence in school is available from the WHO Handbook on school-based violence prevention³³ and for violence against children more broadly from the INSPIRE framework³⁴. Also relevant is the new strategy adopted by the Safe to Learn initiative³⁵ to which a wide range of organizations are contributing. The organizations that are member of the Safe to Learn initiative have made the prevention of violence in schools a priority in their own strategies. For example, at the World Bank, the Safe and Inclusive Schools Initiative is one of five pillars of the Bank’s approach to realize the future of learning³⁶, with additional analytical work underway to operationalize safety in schools³⁸.

Beyond efforts in individual schools, strategies to end VIAS should be led by Ministries of Education with other Ministries or agencies. To sustainably shift norms, parent associations and teacher unions, as well as religious groups and political parties, need to participate and be heard.

Several guides exist in that respect, including on engaging religious leaders to end VIAS. Codes of conducts and zero tolerance policies towards violence by teachers need to be adopted. More generally, four steps in the strategic process can be suggested: (1) Setting clear standards for all including through codes of conduct and appropriate laws including on corporal punishment; (2) Establishing a solid diagnostic; (3) Developing a common vision and action plan with accountability mechanisms; and (4) Promoting a whole school approach to enhance students’ connectedness with schools and ensure a positive learning environment.

Finally, better data are needed both to update existing school health surveys in many countries and to ensure that broader information is collected, especially on sexual violence.

Figures on VIAS may represent lower bound estimates, especially because data are not widely available for some forms of violence. In some cases, prevalence may be underreported, as is likely the case for sexual violence. In addition, in many countries, the available data are dated and school health surveys should be updated. Improving and expanding questionnaires in various existing surveys would also be highly valuable.

CONCLUSION

Preventing VIAS is a moral imperative. It is also a smart investment. The negative effects of VIAS are widespread. Children’s life is profoundly affected when they are victims or perpetrators of violence, with scars that last a lifetime. Violence in school affects virtually all aspects of a child’s well-being, including especially mental health. Preventing VIAS is above all a moral imperative. But it is also a good investment. This study provides policy makers with rigorous data and evidence on both the negative impacts of VIAS and the large benefits of ending VIAS. The case for investments towards ending VIAS is clear. Promising interventions to end VIAS are available and have large benefits to cost ratios. This study has been undertaken within the context of the multi-partner Safe to Learn global initiative to end VIAS. At the World Bank, the study is part of a program of work on safe and inclusive schools. The findings from the study suggest that in addition to being a moral imperative, ending VIAS is also a smart economic investment.

³¹ Greco et al. (2018).

³² World Health Organization (2019).

³³ Abramsky et al. (2014).

³⁴ WHO (2019).

³⁵ WHO (2018).

³⁶ Safe to learn Initiative (2021).

³⁷ World Bank (2020d). The five pillars are: (1) learners are engaged; (2) teachers facilitate learning; (3) learning resources are adequate and diverse; (4) schools are safe and inclusive; and (5) and systems are well managed.

³⁸ The World Bank is preparing a study on how to operationalize work in this area – both to prevent violence and consider other aspects such as the safety of school infrastructure. That forthcoming study will consider aspects of safe schools related to teaching and learning, school level relationships, safety, and the institutional environment.



INTRODUCTION

Violence against children is a violation of their human rights. It results in significant impacts on their health and wellbeing, affecting in turn the enjoyment of other rights. Preventing violence against children is a moral imperative. It is also a smart investment. This study makes the case for more and better investments towards ending violence in and around schools (VIAS). It also suggests ways to achieve that goal based on the available evidence and lessons from international experience.

In today's fast changing world, education – and more generally human capital, is the foundation of countries' future economic development. Education is essential to achieve the Sustainable Development Goals (SDGs) – not only for SDG4 which is about education, but also for many other areas. Education also has a unique role to play in promoting respect for human rights, and contributing to safe and inclusive societies that do not condone the use of violence, but rather provide children with the skills they will need as adults to find peaceful solutions to conflicts and advance gender inequality. One of the drivers of violence against children including in schools is actually gender inequality, with girls facing violence from pre-birth, with sex selective abortions, into adulthood³⁹. Safe and inclusive societies that do not condone violence against children, but condemn it are societies that value girls and boys equally.

Unfortunately, violence against children, including VIAS, remains widespread in developing and developed countries alike and the COVID-19 pandemic is likely to have exacerbated some of the factors that lead to violence against children in general, and violence in schools in particular. Given its negative long-term consequences for children's wellbeing and their capacity to learn, preventing VIAS is simply a prerequisite to enable children to thrive. Failure to do so will negatively affect not only the children today, but also the members of their future families as adults and societies as a whole.

This study was undertaken within the context of the Safe to Learn global initiative dedicated to ending violence against children in and around schools⁴⁰. The initiative set out in a five-point call to action to (1) Implement policy and legislation; (2) Strengthen prevention and response at the school level; (3) Shift social norms and behavior change; (4) Invest resources effectively; and (5) Generate and use evidence. The study aims to contribute to these commitments, and especially to the generation and use of evidence on how to end violence in schools, and how to invest resources to do so effectively.

At the World Bank, the study is part of a broader program of work on safe and inclusive schools, which is one of the five pillars of the World Bank's strategy to improve learning⁴¹. The study is organized in two parts. The first part documents the prevalence of VIAS, its potential impacts, and the costs associated with those impacts. Chapter 1 first defines the

³⁹ See for example the Lancet series at <https://www.thelancet.com/series/gender-equality-norms-health>.

⁴⁰ At the time of writing, the coalition behind Safe to Learn includes the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF), the UK Department for International Development (DFID), the United Nations Girl's Education Initiative (UNGEI), the Civil Society Forum to End Violence against Children, the World Bank, Education Cannot Wait (ECW), the Global Partnership for Education (GPE), the Global Business Coalition for Education, and the Global Partnership to End Violence Against Children

⁴¹ World Bank (2020d). The five pillars are: (1) learners are engaged; (2) teachers facilitate learning; (3) learning resources are adequate and diverse; (4) schools are safe and inclusive; and (5) and systems are well managed.

various forms of VIAS (physical, sexual, and emotional) and provides basic information on their prevalence. Violence remains ubiquitous in schools. The issues of corporal punishment in school and the continuum of violence and risk of poly-victimization are also briefly discussed.

The next two chapters provide tentative estimates of the potential impacts of VIAS on schooling, learning, and earnings (Chapter 2), and on health and well-being, fertility, and agency (Chapter 3). The analysis relies on a wide range of surveys. The analysis demonstrates that violence has lasting negative impacts on students, including lower academic performance and poor physical, mental, and emotional health. It also undermines the ability of communities and governments to create schools that are safe harbors in which children can develop their abilities and skills, while also embracing the values of cooperation, mutual respect, peaceful problem solving, inclusion, and gender equality. Based on measures of potential impacts, estimates of potential lifetime economic costs especially for lost earnings are provided (Chapter 4).

The second part of the study is devoted to a discussion of programs and policies to end VIAS. A framework is first provided on some of the main risk factors leading to VIAS (Chapter 5). No single factor can predict violent incidents. Rather, it is often a combination of factors at the individual, relationship, school, community, and societal levels that leads to violence. The accumulation of risk factors often explains why an individual behaves more violently or is more prone to be victimized than another. Therefore, instead of looking for a single intervention to prevent violence, it is best to combine interventions to tackle salient risk factors and enhance relevant protective factors. Promising school-based interventions are discussed within a life cycle approach (Chapter 6). In addition, to prevent VIAS, multiple stakeholders must be engaged within the school –students, teachers, and principals, but also in the community, including parents and caregivers (Chapter 7). Examples of effective programs are provided. Finally, illustrative cost-benefit analyses are reported showing that investing in interventions to prevent VIAS is likely to generate benefits well above the interventions' cost (Chapter 8).

A brief conclusion follows, including suggestions for further research. There is a need not only to test innovative programs to end VIAS in developing countries where the available evidence on what works remains limited, but also to conduct cost-benefit analysis of those interventions. We need to better incorporate violence-related indicators in rigorous evaluations assessing the impact of interventions on learning outcomes. Another priority should be to improve the design of surveys aiming to measure VIAS, so that apart from measurement, the surveys can be used more systematically to provide insights on the correlates of VIAS and its impacts. In addition, questions on VIAS could be integrated in other surveys, such as multi-purpose surveys used for poverty analysis – these surveys often contain detailed modules on the education of household members, but rarely questions on VIAS. Adding such questions would not lead to much longer surveys, and could provide a richer data source for analysis than those currently available.

Another area where research is needed is how to implement reforms and scale up successful programs. Furthermore, the question of what to do to prevent VIAS is more complex than simply identifying interventions that can achieve positive impacts. Efforts to end VIAS can be successful only with an understanding of the political economy of broader reforms, as well as the enforcement of existing laws and regulations. Research is needed to better assess the social constraints to violence prevention, why some societies or communities tolerate or even condone the use of violence in various contexts, what incentives and accountability mechanisms may be needed at different levels to end VIAS, and how policymakers should prioritize and sequence programs and policies to enable all stakeholders to play an active role in ending VIAS. This study does not cover all of these questions. But it does hopefully provide a few pointers on the potential benefits of ending VIAS, and promising approaches to do so.

PART I

VIOLENCE IN SCHOOL AND ITS IMPACTS

CHAPTER 1

TYPES OF VIOLENCE AND PREVALENCE

Violence is a ubiquitous problem in schools in many communities throughout the world, directly affecting teachers and students and indirectly having an impact on the wider community itself. It has multiple, lasting impacts on students. It also undermines the ability of communities and governments to create schools that are safe harbors where children and adolescents can develop their abilities and skills while also embracing the values of cooperation, mutual respect, peaceful problem solving, inclusion, and gender equality. This chapter first defines the various forms of VIAS before providing information on their prevalence using a range of data sets. The issues of corporal punishment in schools, the continuum of violence, the risk of poly-victimization, and the transmission of violence across generations are also briefly discussed.

TYPES OF VIOLENCE

A commonly accepted definition of violence comes from the World Health Organization's 2002 World Report on Violence and Health⁴² which, following an earlier consultation⁴³, defined violence as *“the intentional use of physical force or power, threatened or actual, against a person or group that results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation.”*

Violence is the result of an abusive use of force or power against a person. The harm can be actual or threatened and it may take different forms. It can lead to injury or death, but also to trauma or other mental health symptoms. As such, the consequences of violence may not always be highly visible, but they are nevertheless damaging. Violence is also often multidimensional, meaning that individuals are often subjected to multiple forms of violence and in multiple

locations, not only (for children) at school, but also at home and in communities, including online communities.

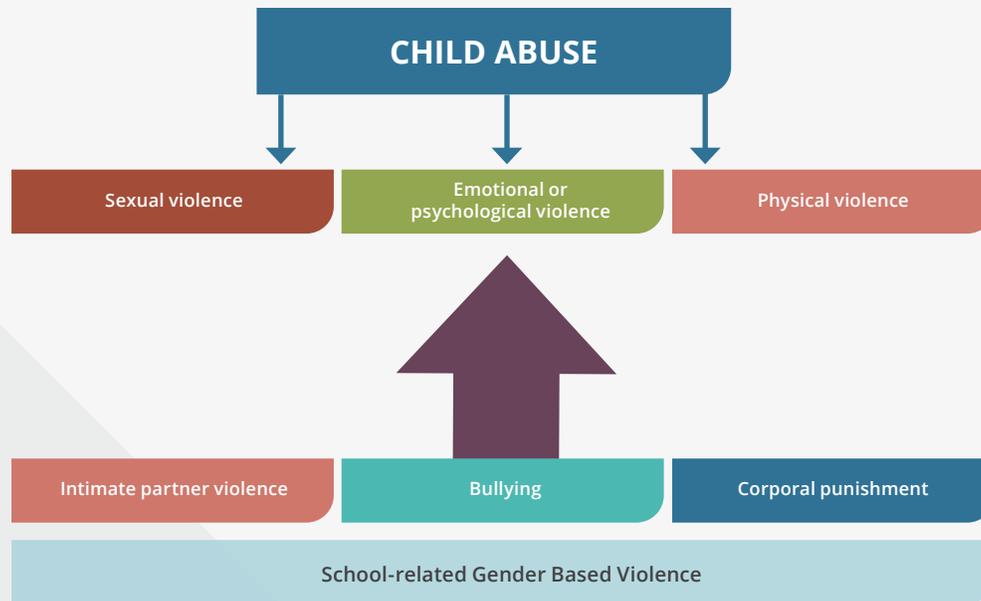
Figure 1.1 provides a diagram with key concepts often used when talking about violence against children. Child abuse is a broad category that reflects among others violence and neglect occurring to children under 18 years of age. It includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power. Exposure to intimate partner violence is also sometimes included as a form of child abuse. Abuse is a broader concept than violence per se, but all three main forms of violence – sexual and emotional or psychological, and physical violence contribute to abuse:

- **Sexual violence** is defined as any sexual act, intimidation, attempt to obtain a sexual act, unwanted sexual comments or advances against another individual using coercion. In addition to the lasting physical and psychological damage that sexual violence frequently exacts on victims, it also can have subsequent and lasting negative effects on victims' health in terms of sexually transmitted diseases (STDs), and other health issues.
- **Emotional or psychological violence** may include verbal and emotional abuse, such as isolating, rejecting, ignoring, insulting, spreading rumors, making up lies, name-calling, ridiculing, humiliating and threatening. It can be inflicted in schools by student as, but also by teachers through forms of punishment that humiliate, denigrate, scapegoat, threaten, scare, or ridicule students, frequently again with long-term consequences for the children's health and well-being. While emotional violence may be less visible than physical or sexual violence, it can also have significant and lasting impacts on students.
- **Physical violence** is any form of physical aggression with intent to hurt another person. It can manifest itself from student to student, student to teacher, or teacher to student. One manifestation of teacher to student violence is corporal punishment which remains used in many schools as a form of discipline mechanism to correct misbehavior in the classroom, or punish

⁴² Krug et al. (2002).

⁴³ WHO Global Consultation on Violence and Health (1996).

Figure 1.1: Forms of Violence in and Around Schools



Source: Authors.

children for poor academic performance or other reasons. Physical violence is the most common form of violence in schools and is highly visible to all students.

In addition to those three broad categories or forms of violence, given the specific focus of this study on violence in and around schools, Figure 1.1 also highlights particular types of violence which can themselves sometimes be expressed in multiple ways through physical, emotional, or sexual violence.

- **Bullying** is defined as unwanted, unwelcomed, repeated aggressive behavior among students, and is among the most common forms of violence in school settings. As for other types of violence, bullying can have serious and lasting physical, mental and emotional problems for victims. In an era of rapid technological growth, and in the context of a higher emphasis placed on remote learning brought about by the COVID-19 pandemic, cyberbullying (bullying which takes place over digital devices) has become a front-and-center issue that schools, educators, parents, and communities must struggle with. Bullying and cyberbullying are highly prevalent in schools.
- **Corporal punishment** is also a common form of violence against children worldwide. It includes any punishment

in which physical force is used and intended to cause some degree of pain or discomfort, however light, as well as cruel and degrading non-physical forms of punishment. Corporal punishment remains highly prevalent in schools as a way to discipline students.

- **Intimate partner violence** or IPV refers to any behavior within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship. Dating violence between students is a form of IPV and VIAS, while sexual harassment on the way to or from school by individuals who are not a partner is a form of VIAS, but not of IPV.

Figure 1.1 also highlights gender-based violence, which refers to acts or threats of sexual, physical, or emotional violence occurring in and around schools, perpetrated as a result of gender norms and stereotypes, and enforced by unequal gender dynamics. When considering gender-based violence in schools, it is important to understand the link between violence against women and violence against children. This link persists through the intergenerational transmission of violence and the gendered continuum of violence. Children who have witnessed or experienced violence at home at an early age are more likely to either perpetrate violence or be victimized when they grow up. Child maltreatment is

particularly damaging for the child's development, but simply witnessing violence is also damaging. Children who live in a household where the mother or other women are chronic victims of violence face higher risk factors for future violence or victimization.

Different forms of violence reinforce each other and tend to feed a self-reproducing cycle. This is referred to as the continuum of violence from the home to the streets to the school, where victimized children tend to experience violence in multiple places, often in multiple forms. The root causes for this continuum of violence include patriarchal systems that endorse the use and abuse of power over others, installing a hierarchy among forms of violence that tends to acknowledge the severity of some (for example, when men are mostly victims) while understating the impacts of others (for example, when women and children are affected). As such, systematically looking at violence dynamics and risk factors with a gender lens is crucial in identifying sustainable solutions.

PREVALENCE OF VIOLENCE IN SCHOOLS

Reports and studies⁴⁴ have been published on the prevalence of various forms of violence, including in and around schools. For violence in schools, analysis typically relies on multi-country school health surveys which focus on physical violence and bullying, although other types of surveys can be used for specific countries (on data sources, see Annex 2). In a recent report on the prevalence of violence in schools globally, UNESCO finds that a third of students are bullied by their peers at school at least once in the last month and a similar proportion are affected by physical violence. Among the subset of countries with trends over time, half of the countries had a decline in violence, one fifth had an increase, and there was no change over time in prevalence in the other countries. This suggests that without more forceful programs and policies, limited progress is likely to be achieved over time⁴⁵.

Table 1.1 provides a summary of estimates prepared for this report on the prevalence of VIAS from a range of surveys. Three of the surveys are implemented in secondary schools: (1) the Global School Health Survey (GSHS) which includes mostly low and middle income countries; (2) the Health

Behavior in School-Age Children survey (HBSC) which includes mostly European countries as well as Canada and a few countries from the MENA region; and (3) and the Programme for International Student Assessment (PISA) which includes mostly middle and high income countries. The other two surveys are implemented in the population as a whole: the Violence against Children Survey (VACS) and the Demographic and Health Survey (DHS), both of which have been implemented in low and middle income countries. Details are available in background notes. Estimates are averages across countries.

The proportions of children involved in fights or victims of bullying are broadly similar in both the GSHS and HBSC surveys for which questions tend also to be broadly comparable. In the PISA survey, the questions that are asked are different⁴⁶, but the estimates of VIAS are of the same order of magnitude as in the GSHS and HBSC surveys. The share of children affected by physical violence is a bit lower in the VACS surveys. For other forms of emotional violence and for sexual violence (not available in GSHS and HBSC surveys), proportions are lower in the VACS, but due to limits in the data as well as the possibility of underreporting, actual values could be larger. In the DHS, sexual violence (being forced to have sex) likely to happen in school is limited, but may be underreported, for example when the topic is considered taboo. Unfortunately, data on sexual harassment which affects mostly girls are not widely available.

Overall, the data indicate that the prevalence of VIAS is high in most countries. This said, there needs to be some caution on differences in prevalence between countries since the data sets are limited in geographical scope and age groups included, and the measures used for different surveys are not always the same and therefore not strictly comparable, even if the surveys have many commonalities.

⁴⁴ See among others UNICEF (2014), Office of the SRSG on Violence against Children (2016), Hillis et al. (2016), UNICEF (2017, 2019), Know Violence in Childhood (2017), UNESCO (2019), and World Health Organization et al. (2020).

⁴⁵ UNESCO (2019).

⁴⁶ In PISA, children are asked if during the past 12 months, they (1) were left me out of things on purpose by other students; (2) other students made fun of them; (3) they were threatened by other students; (4) other students took away or destroyed things that belonged to them; (5) they got hit or pushed around by other students; and (6) Other students spread nasty rumors about them. Among those, (1) and (2) are not strictly speaking measures of violence and therefore are not reported here, but they are included as controls in subsequent regression analysis.

Table 1.1: Prevalence of Violence in Schools in Multi-country Surveys (%)

	GSHS	HBSC	PISA	VACS	DHS
GSHS, HBSC, and PISA surveys					
Attacked in last 12 months	37.8	-	-	-	-
Involved in fight in last 12 months	27.6	31.2	-	-	-
Injured in last 12 months	31.3	44.5	-	-	-
Injured from fight	1.5	1.8	-	-	-
Bullied in last 30 days	29.5	29.0	-	-	-
Others left me out of things					
Students made fun of me	-	-	23.8	-	-
Threatened by other students	-	-	26.5	-	-
Others destroyed my things	-	-	23.4	-	-
Hit by other students	-	-	33.5	-	-
Nasty rumors about me	-	-	-	-	-
VACS and DHS surveys					
Physical violence in schools	-	-	-	28.7	-
Emotional violence in schools	-	-	-	3.5(*)	-
Sexual violence in schools	-	-	-	2.8(*)	1.5(*)
	-	-	-	2.8(*)	1.5(*)

Source: Authors' estimates.

Note: The prevalence of emotional and sexual violence in VACS and DHS surveys may be underestimated.

While we do not attempt to provide estimate of how the COVID-19 pandemic may affect violence in school once students return to school, the pandemic is likely to have exacerbated some of the factors that lead to violence against children in general, and violence in schools in particular.

Chapter 5 discusses some of the risk factors for being a perpetrator or the victim of violence in school. Several of those risk factors may have been exacerbated by the current crisis. Many individuals and households are under stress due among others to social isolation, losses in employment and income, and illnesses or death from the pandemic. Initial predictions of the economic impacts of the crisis were dire⁴⁷ for both developed⁴⁸ and developing countries⁴⁹. Over time many projections were further revised downward, and while a recovery is underway, the consequences of the crisis have been severe. Estimates suggest that the crisis may lead to an increase in the number of poor people of 150 million⁵⁰. Of those, about half are children. According to the World Food Programme, the number of people suffering from acute hunger may have doubled⁵¹. Student learning suffers during recessions⁵², and estimates suggest that learning poverty – the share of children not able to read and understand a

simple text, may increase by 10 percentage points under a pessimistic scenario⁵³. For schooling, girls are especially likely to be affected⁵⁴, leading to higher risks of child marriage⁵⁵ with major implications for the rest of their life⁵⁶. More generally, children from vulnerable groups, including not only girls and those in extreme poverty, but also children with disabilities, refugees and internally displaced persons, and other groups are especially at risk.

CONTINUUM OF VIOLENCE, POLY-VICTIMIZATION, AND VULNERABLE GROUPS

The various forms of violence often do not occur in isolation. Instead, they tend to reinforce each other. In addition children are often victims of violence in separate locales, at school but also at home and in the community. This feeds into a self-reproducing cycle⁵⁷ which can be referred to as the continuum of violence from the home to the streets to the school, where victimized children tend to experience violence in multiple places and often through multiple forms as suggested in Figure 1.2. Poly-victimization is another term used to refer to the fact that children may be affected

⁴⁷ International Monetary Fund (2020).

⁴⁸ For Europe, see European Commission (2020).

⁴⁹ For sub-Saharan Africa, see World Bank (2020a).

⁵⁰ World Bank (2020b).

⁵¹ Food Security Information Network (2020). School lunch programs were also affected. These programs serve many children (World Food Programme, 2013, 2020).

⁵² Shores and Steinberg (2019).

⁵³ Azevedo (2020).

⁵⁴ See UNDP (2015), Onyango et al. (2019), and Bandiera et al. (2019). See also World Bank (2020c) for a review, as well as Asfaw (2018) on Ethiopia, Dureya et al. (2007) and Cerutti et al. (2019) on Brazil, and Lim (2000) on the Philippines.

⁵⁵ Wodon et al. (2016, 2017); Kassa et al (2019).

⁵⁶ Wodon et al. (2018).

⁵⁷ Wilkins et al. (2019).

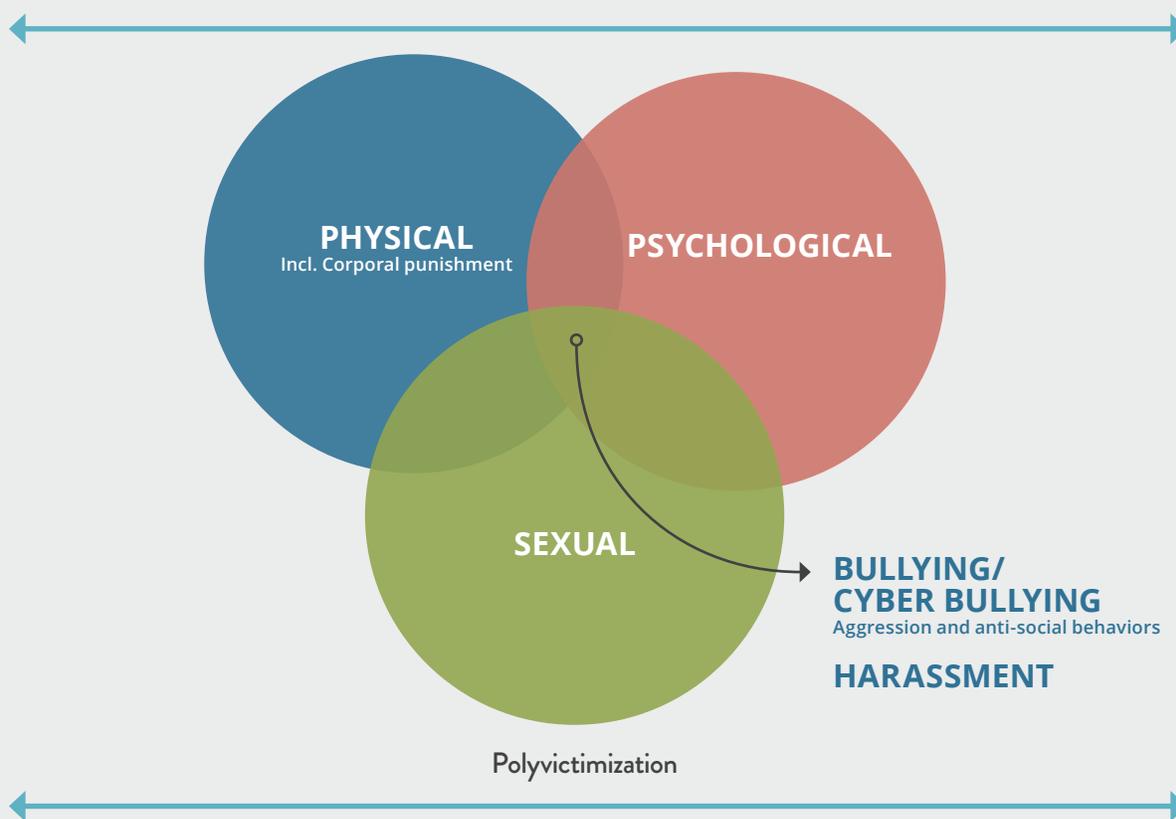
by violence in multiple locales, as well as by multiple forms of violence – not only physical violence, but also sexual and emotional violence. In the United States, the National Survey of Children’s Exposure to Violence shows that for a child who experienced physical violence in the past year, the risks of being victim of sexual abuse and suffering from child maltreatment are five and four times higher, respectively.

Children’s poly-victimization has multiplier effects on their wellbeing and capacity to learn as children exposed to multiple forms of violence are at higher risk of lasting

physical, mental and emotional harm. Poly-victimization has a cumulative negative effect that leads to complex trauma, which requires specific attention as it signals a child’s greater vulnerability and distress. Policymakers and stakeholders working in school need to take poly-victimization into account to respond to the multiple layers of risks and distress of children and to target the most vulnerable children⁵⁸.

As an illustration of poly-victimization at work in schools, Table 1.2 provides estimates of the marginal impact of one type of violence on the likelihood of being the victim

Figure 1.2: Continuum of Violence and Poly-victimization
Continuum of violence



Source: Adapted from UN Women and UNESCO (2016).

of another type of violence. For example, in the GSHS surveys, the coefficient of 0.169 in the last column of the first row suggests that having been bullied is associated with an increase in the likelihood of having been attacked by 16.9 percentage points. All coefficients in the Table are positive and statistically significant, suggesting positive associations between the various forms of violence and thus pointing to the fact that children are often the victims of multiple forms

of violence. This is not only the case in school, but also at home and in the community, leading to more serious trauma for the children affected.

One of the root causes for this continuum of violence is the patriarchal system that endorses the use and abuse of power over others, including by installing a hierarchy among forms of violence that tends to acknowledge the severity of some

⁵⁸ Finkelhor et al. (2011).

Table 1.2: Poly-victimization – Estimates of Marginal Effects between Multiple Types of Violence

	Attacked	Fought	Injured	Bullied
GSHS Data				
Attacked	-	0.268	0.140	0.169
Fought	0.256	-	0.143	0.122
Injured	0.127	0.136	-	0.138
Bullied	0.171	0.129	0.155	-
HBSC Data				
Fought	-	-	0.094	0.114
Injured	-	0.115	-	0.075
Bullied	-	0.107	0.058	-

Source: Authors' estimation based on GSHS and HBSC surveys.

(when men are mostly victims) while possibly understating the impacts of others (for forms of violence that women and children mostly experience). In school, violence may also start with actions among students that may seem innocuous to educators, but they can escalate and lead to extreme consequences such as death or suicide. Understanding this continuum is critical to act early to prevent episodes of violence from escalating or prevent them from happening.

Some groups of children may be especially at risk of VIAS, in some cases with compounding effects when multiple risk factors are combined. Children who have witnessed or experienced violence at home, including at an early age, tend to have a higher probability to either perpetrate violence or be victimized when they grow up⁵⁹. Violence in childhood is particularly damaging, with consequences that can last for a life time⁶⁰. Witnessing violence is also damaging as children. When the mother or another woman in the household is a victim of violence, children are at higher risk of both perpetrating violence or being a victim later in life⁶¹. Some groups of children are especially vulnerable to violence, for example when they are mocked by other children or not seen as equals. This is the case for children with disabilities as well as various minorities – including (depending on the country) ethnic, racial, religious, LGBTQ, and indigenous peoples⁶². Some studies suggest a link between violence against non-

gender conforming students and suicidal behavior. The prevalence of various forms of VIAS also differs by gender and age. For example, the prevalence of physical violence and bullying tends to decrease among older students, although the severity of particular episodes of VIAS may in some cases increase.

To conclude, violence is often a manifestation of underlying tensions within the family, the community, or the school. As will be discussed in subsequent chapters devoted to programs and policies to end VIAS, in schools teacher training is needed to ensure that schools are child-friendly and inclusive – this matters for educational attainment and learning in general, but also to prevent VIAS. In communities as well and within the family, interventions can help to reduce VIAS. When seeking solutions, this suggests the need to systematically look at violence dynamics and risk factors, including with a gender lens, as will be discussed in subsequent chapters⁶³.

⁵⁹ On LGBTQ, see for example Hotaling and Sugarman (1986); Bandura (1986); Fargo (2009).

⁶⁰ Zolotor et al. (1999); MacMillan et al. (2009).

⁶¹ Bair-Merritt et al. (2006); Fulu et al. (2017); Jewkes et al. (2002); Meltzer et al. (2009); Guedes et al. (2016); Fry et al. (2018).

⁶² UNESCO (2017).

⁶³ Jewkes et al. (2002); Heise (2011); Namy et al. (2017).

CHAPTER 2

IMPACTS ON EDUCATION AND EARNINGS

VIAS can have a wide range of negative impacts. This chapter provides evidence of potential impacts related to education⁶⁴ (schooling and learning) and work (labor force participation, earnings, and productivity). For education, the focus in this chapter is on (i) the student's perception of his/her experience in school or connectedness with the school and whether he/she missed days at school; (ii) the student's learning performance as measured through international assessment data or grades in school; (iii) whether VIAS may be perpetrated by teachers or school principals for providing education services, using the prevalence of petty corruption as a proxy; (iv) whether VIAS is a major reason for students' decision drop out of school; and (v) the relationship between VIAS and educational attainment.

For potential impacts related to work in adulthood, the focus is on (i) expected (wage) earnings when working; (ii) labor force participation and the type of employment held; and (iii) perceptions of the household standard of living. It is important to emphasize that violence in schools can have both direct and indirect impacts on children. When considering schooling and learning, direct potential impacts of VIAS are estimated. By contrast, when considering work-related outcomes, indirect potential impacts are estimated through educational attainment and learning.

STUDENTS' EXPERIENCE IN SCHOOL

Violence in school affect the relationships between students, and between students and their teachers. It can also affect the community, or vice-versa, and reinforce exclusion. This in turn can affect how students view their own education, and how they perceive not only their schools, but their teachers as well as whether they even want to go to school. Simply said, violence in school affects student's socio-emotional well-being as well as their socio-emotional skills (SEL), which in turn are critical for

the student's growth, resilience, as well as her openness and tolerance vis à vis others' cultures and beliefs.⁶⁵ By contrast, in contexts marked by violence, both in school and in the community or country, experiences in schools may contribute to distrust, so that specific support mental health or psychosocial support may be required to help students⁶⁶. In this section, the aim is to suggest estimates of the potential negative impact of violence in school on student's experience in school.

GLOBAL ESTIMATES

Data are available on student's perception of their experience in school in the HBSC, GSHS, and PISA surveys – the main surveys to measure the prevalence of physical violence and bullying in schools. It is, therefore, feasible to assess the direct potential impact of VIAS on those perceptions. In the PISA data which covers many middle and high income countries, data are available on whether (1) students have no close friends, (2) feel lonely, (3) feel that other students do not accept them like they are, and (4) find it easy to make friends. Information is also available on whether students feel that their teachers (5) make them confident, (6) listen to them, and (7) understand them

With the HBSC surveys for European countries plus Canada and a few countries in the Middle East and North Africa region, information is available on whether students (1) like their school; (2) feel that their teachers think they are doing poorly academically in comparison to other students; (3) feel that other students do not accept them the way they are; (4) feel that their teachers do not accept them the way they are; (5) feel that their teachers do not care about them as a person; and finally (6) have no trust in their teachers. In most cases, multiple answers can be provided by students, for example, ranging from strongly agree to strongly disagree when asked about various perceptions, but all outcome variables have been dichotomized (yes/no coding) for the analysis in order to facilitate the interpretation of the results. The data from the GSHS are less detailed, but three perceptions of students related to their experience in school are available: (1) whether the students have close friends in school; (2) whether they missed school days; and (3) whether they can benefit from help from other students or not.

⁶⁴ Students who are victims of VIAS are more likely to miss school, feel anxious, and lack friends and trust in teachers and principals. They may not be learning as well. Teachers working in violent environments are also often underpaid, overworked, and possibly fearful of being victims of VIAS themselves. They may lack the skills to manage violence. This may affect their teaching performance, and student learning. Because schools are embedded in communities, IAS may lead to violence and crime in communities, and vice versa. Failure to prevent VIAS can have lasting negative impacts. This chapter provides evidence of some of these potential impacts, focusing on students who are victimized as opposed to students who are perpetrators of violence or may have witnessed violence but were not the target of it.

⁶⁵ As an example of analysis of student well-being with PISA data, see OECD (2015).

⁶⁶ See Inter-Agency Standing Committee (2007).

To assess the direct potential impacts of VIAS on those perceptions controlling for the factors that may affect them, a range of controls are included in the regression analysis⁶⁷. Table 2.1 provides the results for the potential impacts of the variables of interest (VIAS) with the various surveys. Note that the HBSC data includes information on whether students have been involved in a fight, whether they have been injured (not only because of violence, but also because of other reasons such as being engaged in sports or work), and whether they have been bullied. In addition, the GSHS data has information on whether students have been the victim of a physical attack. In the PISA data, we focus on whether children were threatened, had their things destroyed, were hit, or were the subject of nasty rumors.

The interpretation of the coefficients is in terms of percentage points at the margin. For example, controlling for other factors, being the victim of a physical attack is associated at the margin with an increase in the probability of

missing school of 3.4 percentage points in the GSHS data. For being involved in a fight in those data, having an injury, and being bullied, the negative effects at the margin are larger at respectively 8.9, 7.8, and 5.8 percentage points. Note that for injuries, we consider all types of injuries, whether likely to have taken place in schools due to physical violence or not, but only a minority of injuries are due to violence even if all injuries may affect the outcomes of interest. When conducting simulations of the potential impacts of violence based on the regression results, only injuries likely to be directly related to physical violence in school are accounted for.

Most coefficients in Table 2.1 are statistically significant regardless of the dataset, suggesting systematic negative potential impacts of VIAS. There are a few exceptions. For example, in the GSHS dataset, physical fights are associated with a slightly lower likelihood of having no friends (perhaps because some fights were to support friends),

Table 2.1: Marginal Potential Impacts of VIAS on Students' Experience in School, GSHS and HBSC

	GSHS Data			
	Physical Attack	Physical Fight	Injured	Bullied
No close friends in school	0.008	-0.004	NS	0.011
Missed school	0.034	0.089	0.078	0.058
Not helped by other students	0.023	0.015	0.01	0.051
	HBSC Data			
	Physical Attack	Physical Fight	Injured	Bullied
I do not like my school at present	-	0.083	0.016	0.021
My teachers think I am not doing well academically	-	0.081	0.022	0.027
Other students do not accept me like I am	-	0.014	NS	0.165
My teachers do not accept me like I am	-	0.073	0.021	0.038
	PISA Data			
	Threatened	Things Destroyed	Hit by Others	Nasty Rumors
I have no close friends	NS	NS	NS	0.004
I feel lonely	0.031	0.007	0.006	0.041
Other students do not accept me like I am	0.03	NS	NS	0.048
It is not easy to me to make friends	0.013	NS	NS	0.012
My teachers make me confident	0.012	0.018	0.01	0.032
I feel my teachers listen to me	0.012	0.018	NS	0.033
I feel my teachers understand me	0.013	0.019	NS	0.037

Source: Authors' estimations using GSHS, HBSC, and PISA data. NS means statistically not significant at 0.1 level.

⁶⁷ For the HBSC surveys, the controls include gender, age, grade, the student's height, whether the student is underweight or overweight, whether the student participates in physical education and for how many days per week, whether the students feels that other students are kind and helpful, whether the household in which the student lives is well off as per the student's assessment (with various degrees of being well off), whether the mother and father of the student live at home, whether the student finds it easy to talk to his father and mother, whether the student feels that friends and family try to help when in need. Some of these variables could perhaps be considered as outcomes as well, but they are used for the analysis as controls. For the GSHS data, the controls include gender, age, grade, the student's height, whether s/he goes hungry, whether s/he is underweight or overweight, whether s/he is active, whether s/he benefits from physical education at school, the time spent sitting without activity, whether parents check his/her homework, understand his/her trouble, know what s/he does in his/her free time, and go through the child's things. Other factors could affect the outcomes of interest, but these are the variables available in the dataset that seem to be the most important potential factors affecting outcomes.

and the association between injuries and perceptions that other students do not accept the student as they are is not statistically significant, suggesting no direct impact in that case (indicated by NS in the Table). Still, by and large, the effects are systematic.

What might be the aggregate potential impact on these outcomes if VIAS were eliminated? The potential benefits from ending VIAS depend on both the sign and magnitude of the marginal impacts estimated through the regression analysis, and the share of students experiencing each form of VIAS. In Table 2.2, the first two columns provide the baseline predicted values of the various outcomes, considering first a

simple average across countries without country population weights, and next an average accounting for the difference between countries in the size of their student body. Considering again missing days of schooling as an example, the share of the students missing school is 28.4 percent without country weights and 20.0 with country weights. If all forms of VIAS were eliminated, that share would drop by 5.6 percentage points without country weights and 4.0 points with country weights. In other words, the simulations suggest that one in six instances of missing school may be due to VIAS. For other outcomes, the proportions are lower, but still substantial. This is the case with the other surveys as well.

Table 2.2: Simulations of Potential Impacts of Ending VIAS on Student’s Experience, GSHS and HBSC

	Predicted Share Under Baseline Conditions		Potential Impact of VIAS		Share Associated with VIAS	
	Simple Average	Weighted Average	Simple Average	Weighted Average	Simple Average	Weighted Average
GSHS Data						
No close friends in school	6.1	6.6	0.5	0.4	7.2	5.2
Missed school days	28.4	20.0	5.6	4.0	16.7	14.9
Not helped by other students	25.0	22.6	2.6	2.0	10.3	8.3
HBSC Data						
I do not like my school at present	24.4	25.6	3.1	3.2	10.9	10.8
My teachers think I am not doing well	32.4	33.7	3.1	3.2	8.7	8.7
Other students do not accept me like I am	23.4	25.1	4.8	5.0	14.7	14.9
My teachers do not accept me like I am	19.5	20.6	3.3	3.5	14.3	14.3
My teachers do not care about me	36.6	38.4	2.1	2.1	5.6	5.4
I do not feel a lot of trust in my teachers	38.5	40.3	2.8	2.8	7.4	7.2
GSHS Data						
I have no close friends	1.6	1.7	0.2	0.3	9.2	9.8
I feel lonely	18.1	18.9	2.8	3.0	10.1	10.7
Other students do not accept me like I am	24.4	21.6	2.0	2.2	6.8	7.6
It is not easy to me to make friends	23.0	23.2	0.7	0.7	2.5	2.7
My teachers make me confident	22.2	21.5	1.7	1.7	7.5	7.9
I feel my teachers listen to me	26.7	26.8	1.6	1.7	6.1	6.3
I feel my teachers understand me	27.3	26.4	1.8	1.8	6.1	6.5

Source: Authors’ estimations using GSHS, HBSC, and PISA data.

Note: The simple average is an average values across all countries without considering differences in student population between countries. The weighted average factors in the countries’ student population.

UNITED STATES

Analysis is also conducted using the School Survey on Crime and Safety (SSOCS) for the United States, a rich dataset in terms of the types of violence included since information is available on seven different types of VIAS or proxies thereof: fights, bullying, hate, avoidance strategies, fear, weapons, and finally gangs. The first six variables are related to victimization and behaviors by individual students while the last variable relates to the presence of gangs in the school, whether individual students are involved in them or not. In terms of outcomes, five variables are considered, namely whether students (i) trust the school’s administrative processes (including to deal with VIAS); (ii) feel adults and teachers do not care about them; (iii) lack friends; (iv) expect to continue their education beyond high school; and (v) know how to get drugs in the school. The analysis controls for selected other factors that may affect these outcomes, including gender, age, race, the grade the student is in, the number of school activities that the student is involved in, the number of security measures in place in the school, and a measure of household income (series of income levels).

Table 2.3 provides estimates of the marginal potential impacts of VIAS with two years of data. The interpretation

of the coefficients is again in percentage points. For example, the estimate for fights and trust in the school’s processes for the 2015 survey suggests that students involved in fights are 10.3 percentage points more likely to not have thrust in the school’s administrative processes including those to handle violence. The estimate obtained with the 2015 survey is similar. In virtually all cases, exposure to VIAS leads to worse outcomes. The only exception is whether VIAS affects the likelihood of pursuing one’s education beyond high school (in most cases impacts that are not statistically significant).

How much difference might ending VIAS make? Table 2.4 provides the simulation. The potential impacts tend again to be large. For example, with the 2015 data, the share of students who do not trust the school’s administrative processes could be reduced by 7.0 percentage points or about a fourth of the base value if VIAS were eliminated. The magnitude of the proportional reduction from the base is similar for the share of students who feel that adults and teachers in the school do not care about them, feel they lack friends, or know how to get drugs in the school. The impact by contrast on the share of students who are considering pursuing their education beyond high school is virtually non-existent. The fact that results are similar with the 2015 and 2017 surveys is indicative that effects may be systematic.

Table 2.3: Marginal Potential Impacts of VIAS on Student’s Experience in the Classroom, United States

	Fights	Bullied	Hate	Avoidance	Fear	Weapon	Gangs
2015 Survey							
No trust in school	0.103	0.157	0.152	0.107	0.085	0.164	0.145
Teachers not caring	0.047	0.032	0.044	NS	0.035	0.032	0.023
Lack of friends	0.051	0.024	NS	0.047	NS	NS	0.035
Studying beyond high school	NS	NS	0.041	NS	NS	NS	NS
Knows how to get drugs	0.138	0.233	0.221	0.099	0.117	0.371	0.358
2017 Survey							
No trust in school	0.105	0.185	0.115	0.085	0.057	0.095	0.226
Teachers not caring	0.062	0.051	NS	NS	0.039	NS	0.037
Lack of friends	0.032	0.033	0.034	0.029	0.047	NS	NS
Beyond high school	NS	NS	NS	NS	NS	NS	-0.027
Knows how to get drugs	NS	0.192	0.193	0.089	0.121	0.276	0.335

Source: Authors’ estimation using SSOCS data for 2015 and 2017.

Table 2.4: Simulations of Potential Impacts of ending VIAS on Students' Experience, United States

	Baseline (Predicted)	Absolute Change with no VIAS	Percentage Change with no VIAS (%)
2015 Survey			
No trust in school	26.7	-7.0	-26.4
Teachers not caring	6.7	-1.8	-26.2
Lack of friends	6.3	-1.4	-22.8
Beyond high school	85.6	-0.3	-0.3
Knows how to get drugs	41.3	-10.5	-25.4
2017 Survey			
No trust in school	26.4	-8.0	-30.3
Teachers not caring	7.4	-2.1	-28.1
Lack of friends	6.9	-1.9	-27.0
Beyond high school	86.0	1.1	1.3
Knows how to get drugs	38.4	-9.3	-24.3

Source: Authors' estimation using SSOCS data for 2015 and 2017.

LEARNING IN SCHOOL

Violence in school may also affect student learning, especially for vulnerable groups including girls. In some cases, teachers may be the perpetrators of violence instead of supporting for safe learning environments. Qualitative studies have pointed to relationships between VIAS and educational outcomes. In the Northern Triangle of Central America, gangs generate climates of generalized fear that affects the quality of relationships and student's academic performance⁶⁸. A qualitative study for Bangladesh found that teachers and other adults suggests that experiences of corporal punishment could be a factor leading to school dropout and thereby a loss in learning⁶⁹. In the UK, life histories suggest that a negative relationship between abuse learning outcomes⁷⁰. Violence in school is also associated with various types of disruptions in the classroom. Some students may be deeply affected, while others may simply be distracted, but in both cases this can have negative implications for their ability to concentrate. Teachers may need to spend more time managing disruptions in the classroom, or may resort to classroom management practices correlated with lower academic performance for students. The level of disruption in classrooms can be measured, and studies suggest that such disruptions are associated with lower student performance, in turn suggesting that improving the classroom disciplinary climate may boost student performance⁷¹. More generally, the quality

of teacher interactions with students can be beneficial for students well-being as well as for their learning⁷², but violence in school may prevent such quality interactions. Following the analysis of the previous section, the aim of this section is to estimate the potential negative impact of violence in school on student learning.

PISA

Data from the PISA Assessment can be used to assess the potential impact of violence in school on students' test scores. The assessment is implemented among 15 year-old children to assess their ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges. The data sets include a wide range of variables that can be used as controls when estimating the association between violence in school and student performance. As mentioned in Chapter 1, children were asked if during the past 12 months, they (1) were left out of things on purpose by other students; (2) other students made fun of them; (3) they were threatened by other students; (4) other students took away or destroyed things that belonged to them; (5) they got hit or pushed around by other students; and (6) other students spread nasty rumors about them. Among those variables, items (1) and (2) are not strictly speaking measures of violence, but they are included as controls.

⁶⁸Ranieri (2019).

⁶⁹Mitu et al. (2019).

⁷⁰Nelson (2009).

⁷¹Cahu and Quota (2019).

⁷²See Hallinan (2008) and Baafi and Kwabena (2020).

Key results for the potential impacts violence of are provided in Table 2.5. Test scores are scaled so that the international average for the ten countries is 500 points and the standard deviation is 100 points when weighting all countries equally. This implies that two in three pupils are in a range of 400 points to 600 points, and most students are in the 250 to 750 range. An average score of 500 does not mean that a student is doing well, as many students do not achieve basic language and math proficiency. As shown in Table 2.5, when a student is threatened by other students, this is associated

with a reduction in performance on the mathematics assessment of -22.6 points (-21.7 points for boys and -24.0 points for girls). Effects for the reading and science tests are similar. Other types of violence are also negatively associated with student performance, although the magnitude of the effects is smaller. The negative effects of the proxies for VIAS are typically as large, and in some cases larger than the potential impact of a wide range of other variables on student performance, suggesting that VIAS matters.

Table 2.5: Potential Impact of VIAS on Student Learning, PISA

	Mathematics			Reading			Sciences		
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls
I was threatened by other students	-22.6	-21.7	-24.0	-28.2	-26.8	-30.2	-24.3	-23.0	-26.1
Others destroyed my things	-0.9	-3.5	1.6	-5.3	-7.3	-2.9	-2.3	-3.9	-0.6
I got hit by other students	-9.9	-10.5	-9.6	-14.8	-15.6	-14.4	-10.9	-11.4	-10.7
Others spread nasty rumors about me	-3.2	-3.2	-2.1	-3.1	-4.4	-1.5	-3.4	-4.8	-1.4

Source: Authors' estimations using PISA data.

Would ending VIAS make a large difference in PISA scores at the national level? Table 2.6 provides the results of simulations in which the four types of violence (listed above and captured in the PISA) are eliminated. Average reading scores across countries would increase by 11.9 points for boys and girls combined, which represents an increase in performance of 3.1 percent from the base. Estimates for

mathematics and science are of a similar order of magnitude, albeit a bit smaller, with gains of 2.1 percent from the base for mathematics and 2.3 percent for science. In some countries, gains are larger, while in other countries gains are lower. These gains may look small, but improving learning is not easy, and gains in simulations for the potential impacts of other types of variables or interventions are often not larger.

Table 2.6: Simulations of Potential Impacts of Ending VIAS on Learning Performance, PISA

	Gain (absolute value)			Gain (proportion from base, %)		
	Boys	Girls	All	Boys	Girls	All
Reading (70 countries)	12.8	11.2	11.9	3.3	2.9	3.1
Mathematics (70 countries)	9.1	7.8	8.5	2.3	2.0	2.1
Sciences (70 countries)	10.2	8.9	9.5	2.5	2.2	2.3

Source: Authors' estimations using PISA data.

PASEC IN FRANCOPHONE AFRICA

Proxies for VIAS are also available in the PASEC data for primary schools in ten Francophone African countries. The latest available data are for 2014 (only parts of the data for the 2019 assessment are currently available). The PASEC dataset also includes information on corporal punishment by teachers –whether teachers report using it, and whether children state that they are beaten by teachers when they are punished or are perceived by teachers as not performing well. Students are asked whether other children play with them (a negative response may be a good predictor of bullying, at least for some students) and whether they feel scared in the classroom/school, which could be a reflection of

violence including corporal punishment by teachers. Almost two-thirds of students reported being beaten by teachers and one-third reported that other children don't play with them, or that they are scared in school. Finally, teachers are asked whether they experienced physical, emotional, or sexual harassment, and how they perceive the school climate and security in the schools.

Key results are provided in Table 2.7. As for PISA, scores are scaled so that the average for the ten countries is 500 points. The analysis is for students in grade 6. When a student reports not playing with others, this is associated with a reduction in score of up to 17.3 points depending on the student's gender and the type of test. Students who

report feeling scared also score lower may suffer from a loss of up to 23.0 points at the margin⁷². How do these effects compare with the potential impact of other variables?

The negative effects of the proxies for VIAS are typically larger than the potential impact of variables on the socio-

economic background of the student, the effect of either a hearing or visual disability, and many other factors affecting learning such as teacher absenteeism, the level of education of teachers, or some of the characteristics of the schools. This suggests that VIAS may have large negative effects on learning.

Table 2.7: Potential Impact of VIAS on Student Learning, 10 countries in Francophone Africa

	Mathematics			Reading		
	All	Boys	Girls	All	Boys	Girls
Not playing with others - Totally agree	-16.5	-17.3	-15.5	-12.1	-12.1	-12.1
Not playing with others - Agree	-10.3	-9.9	-9.3	-9.1	-8.7	-9.3
Feeling scared - Totally agree	-21.6	-23.0	-19.2	-20.4	-21.8	-18.7
Feeling scared - Agree	-17.0	-16.6	-16.6	-18.5	-19.3	-17.7
Corporal punishment by teachers	5.7	7.2	4.2	5.0	7.0	3.4

Source: Authors' estimations using PISA data.

Would ending VIAS make a large difference in PASEC scores at the national level? Table 2.8 provides the results of simulations in which violence and corporal punishment by teachers have been eliminated. Average reading scores for all student in the 10 countries would increase by 5.7 points (5.2 points for boys and 6.4 for girls), which represents an increase in performance of 1.2 percent from the base (1.1 percent for boys and 1.3 percent for girls). Estimates for mathematics

are of a similar order of magnitude, with gains of 6.4 points overall (5.1 points for boys and 7.5 for girls), which represents an increase in performance of 1.24 percent from the base (1.1 percent for boys and 1.6 percent for girls). As was found for the PISA assessment, in some countries gains are larger, while in others they are lower. But while impacts in PASEC are slightly smaller, their order of magnitude is similar to what was observed in the analysis of PISA.

Table 2.8: Simulations of Potential Impacts of Ending VIAS on Learning Performance, PASEC

	Gain (absolute value)			Gain (proportion from base, %)		
	Boys	Girls	All	Boys	Girls	All
Reading (10 countries)	5.2	6.4	5.7	1.1	1.3	1.2
Mathematics (10 countries)	5.1	7.5	6.4	1.1	1.6	1.4

Source: Authors' estimations using PASEC data.

Another interesting feature of PASEC is that teachers are asked whether they have experienced harassment, which is a form of violence, and their perceptions of the school climate in general, and specifically in terms of security at schools. Some teachers state that they have been harassed emotionally, but the prevalence of physical and especially sexual harassment is lower. A small share of teachers also mention a lack of security at school and a negative school climate. Harassment of teachers in particular affects teacher satisfaction with their working conditions, which in turn may affect the school climate and how well children learn in school as measured by student assessments.

One of the strategies for ending VIAS consists in providing appropriate pre-service and in-service training to teachers on how to ensure that schools remain safe. Another result from the PASEC analysis worth mentioning is the fact that unfortunately, such training is rarely provided in Francophone Africa, and probably in low and lower-middle income countries more generally. The data suggest that training on child-friendly and inclusive schools, the topics most closely related to preventing violence in school, are the two categories of in-service training provided the least to teachers. It is also worth noting that Afrobarometer data for three dozen African countries suggest that one in five individuals are affected by petty corruption, which may lead to bribes, gifts, or favors, but may also in some cases to sexual violence against children.

⁷²Students who declare being victims of corporal punishment do actually slightly better, but effects are smaller (the largest effect is at 7.2 points). This positive effect is no reason to endorse corporal punishment given the possibility of other negative effects and the fact that the practice may contribute to perpetuating a culture of violence in schools and more generally in communities.

UNITED STATES

For the United States, analysis is conducted using the SSOCS data mentioned earlier. In terms of learning outcomes, two variables are available: students' grades with A being the top grade and F implying failure, and whether students are distracted in class from doing their schoolwork because other students are misbehaving. For both outcomes, multiple categories are available, so ordered logit models are used for estimations. The analysis controls for gender, age, race, the grade the student is in, household income, and other factors that could affect these outcomes. Table 2.9 provides the key results. The interpretation of the coefficients is slightly more technical, but a positive (negative) coefficient implies an increase (decrease) in the likelihood of observing that outcome. For example, being involved in fights decreases the likelihood of receiving an A, and increases the likelihood of receiving lower grades.

Being involved in fights also increases the likelihood of being often distracted when doing schoolwork, and decreases the likelihood of being never or rarely distracted. Again, in virtually all cases, exposure to VIAS leads to worse outcomes for both grades and being distracted doing schoolwork.

As before, the question of how much difference ending VIAS might make is explored through simulations whereby VIAS is eliminated and the predicted potential impact is measured. Table 2.10 provides the results. Ending VIAS could increase the share of students getting an A by 2.4 percentage points, with a corresponding reduction in the share of students receiving lower grades. For distractions during schoolwork, the effects are a bit larger. Ending VIAS could increase the share of students never or almost never distracted by 7.9 percentage points, with a corresponding reduction in the other shares.

Table 2.9: Marginal Potential Impacts of VIAS on Grades and Distractions in Schoolwork, United States

	Fights	Bullied	Hate	Avoidance	Fear	Weapon	Gangs
2015 Survey							
Exam grades							
F's	0.001	0.001	NS	0.001	0.001	NS	0.001
D's	0.004	0.003	NS	0.003	0.003	NS	0.003
C's	0.036	0.030	NS	0.032	0.031	NS	0.0313
B's	0.049	0.041	NS	0.043	0.043	NS	0.042
A's	-0.090	-0.075	NS	-0.079	-0.078	NS	-0.078
Distracted							
Never	-0.081	-0.132	-0.090	-0.050	-0.107	-0.075	-0.086
Almost never	-0.065	-0.105	-0.071	-0.040	-0.085	-0.060	-0.068
Sometimes	0.113	0.184	0.125	0.070	0.150	0.104	0.119
Most of the time	0.033	0.053	0.036	0.020	0.043	0.030	0.034
2017 Survey							
Exam grades							
F's	0.002	0.001	NS	0.001	0.001	0.001	0.001
D's	0.007	0.003	NS	0.003	0.003	0.003	0.002
C's	0.066	0.033	NS	0.030	0.034	0.027	0.020
B's	0.120	0.059	NS	0.054	0.061	0.049	0.036
A's	-0.194	-0.096	NS	-0.088	-0.099	-0.080	-0.059
Distracted							
Never	-0.049	-0.162	-0.070	-0.065	-0.082	-0.075	-0.099
Almost never	-0.034	-0.114	-0.049	-0.046	-0.057	-0.052	-0.069
Sometimes	0.066	0.217	0.093	0.087	0.109	0.100	0.132
Most of the time	0.018	0.059	0.026	0.024	0.030	0.027	0.036

Source: Authors' estimation using SSOCS data for 2015 and 2017.

Table 2.10: Simulations of Potential Impacts of Ending VIAS on Grades and Distractions, United States

	Baseline (Predicted)	Absolute Change with no VIAS	Percentage Change with no VIAS (%)
2015 Survey			
Exam grades			
F's	0.5	-0.1	-15.7
D's	1.5	-0.2	-14.9
C's	13.8	-1.5	-10.5
B's	42.4	-0.7	-1.6
A's	41.8	2.4	5.9
Distractions			
Never	18.7	3.9	21.0
Almost never	34.0	4.0	11.7
Sometimes	39.7	-4.8	-12.1
Most of the time	7.5	-3.1	-41.5
2017 Survey			
Exam grades			
F's	0.4	-0.1	-25.8
D's	1.3	-0.3	-24.4
C's	12.2	-2.1	-17.4
B's	41.6	-1.5	-3.6
A's	44.5	4.0	9.1
Distractions			
Never	20.7	4.8	23.2
Almost never	35.1	4.6	13.0
Sometimes	36.6	-5.7	-15.4
Most of the time	7.6	-3.7	-48.6

Source: Authors' estimation using SSOCS data for 2015 and 2017.



REASONS FOR DROPPING OUT OF SCHOOL

VIAS may also lead some students to drop out of school. Measuring the potential impact of VIAS on educational assessment is difficult as school surveys are not adequate for this purpose since information is available only for students still in school. However, using other surveys, various approaches can be used to assess whether VIAS leads children to drop out of school and how large the potential impacts may be. One such approach relies on reasons stated by parents as to why their children dropped out of school or is not in school. In some countries, the survey questionnaires ask specifically if violence in school was the reason for dropping out. In particular, insights can be gained from the Young Lives survey whose questionnaires include up to 30 modalities (depending on the country) as potential reasons for dropping out of school. Findings for Ethiopia, India, and Vietnam for children aged 9-17 are provided in Table 2.11 (for Peru, the same data in the survey are not available). The data from the modalities have been summarized in a few aggregate categories for easier interpretation as follows:

- **Violence and exclusion in school and elsewhere:** Several of the response modalities are related to VIAS or proxies for VIAS and other forms of violence. The modalities include (i) Bullying/abuse from peers; (ii) Banned from school for behavior reasons (which could include violent behaviors or fights); (iii) Ill-treatment/abuse from teachers/principal; (iv) Not safe on the way to school; (v) Child not welcome due to ethnic group, caste, etc. (stigma and discrimination can be considered as a form of violence and therefore are included – the share of children affected is however low); and (vi) Family issues and problems at home such as parent disputes and marital conflict (this is included because it relates to the risk of violence at home).
- **Truancy and lack of interest:** Truancy is the action of staying away from school without a good reason. In other words, it is unjustified absenteeism.
- **Lack of affordability of schooling and lack of transport:** Many of the response modalities relate to affordability issues due to out-of-pocket and opportunity costs. These modalities include: (i) Fees too expensive; (ii) Transport too expensive; (iii) Books and/or other supplies too expensive; (iv) Shoes, clothes, or uniform for school too expensive; (v) Needed at home for

domestic or agricultural work; (vi) Have to do paid work to earn money (including agricultural work other than at home); (vii) Need to learn a trade/skill so working (including apprenticeships); (viii) Need to stay home to look after siblings; (ix) Family member ill, disabled, or elderly (providing care); and (x) Want to start working. In addition, the following modalities related to transportation are also included in the affordability category since lack of transport/distance often reflect a lack of resources in the household (such as funds for boarding) to find alternative ways to go to school. Three reasons are related to distances to school and transport: (i) Lack of transport; (ii) School too far from home; and (iii) School not accessible for seasonal reasons (e.g., river prohibits access).

- **Child marriage and gender-based social norms:** These response modalities are especially salient for girls, but occasionally also affect boys. They include: (i) Marriage; (ii) Need to stay at home to look after siblings; and (iii) [Parents considering it] not appropriate for girls to go to school or continue at school.
- **Low quality of schools and poor academic performance of students:** The modalities include: (i) Poor quality of education at school (teaching and learning); (ii) Poor quality of care (food, non-educational care); (iii) No need for schooling for future job (which suggest that learnings is low or not useful); and (iv) Banned from school due to failure to achieve necessary grade/level.
- **Other reasons:** Other reasons included in the surveys include the following: (i) Disability or illness of the child; (ii) Banned from school because away for too long (this could reflect an illness, injury, or other issues – including an inability to pay school fees); (iii) Child too young; (iv) Child still in pre-school (despite the age bracket used for the estimations); (v) Refusal to answer; (vi) Not known; and (vi) Question not applicable.

In Table 2.11, for violence in schools and elsewhere, the first modality for responses (truancy, child does not want to go, not interested) is separated from the others because it includes lack of interest and thus is likely to (vastly) overstate the potential impact of VIAS. The main reason for not being in school full-time is lack of affordability for boys as well as for girls in India and Ethiopia. This factor is also prominent in many other surveys with fewer modalities for responses.

Truancy or the fact that the child does not want to go to school or is not interested is also a major factor for not being in school full-time, especially for boys, and in Vietnam it is the dominant factor. Gender issues, namely marriage and gender norms which are forms of structural violence on girls and can also involve direct physical, sexual and emotional violence, do affect girls. Note that because the sample of children included is from 9 to 17 years, with most girls who marry as children doing so at 16 or 17, the estimates over the larger age group tend to not fully reflect the pressure that adolescent girls have to marry early especially in India and Ethiopia despite progress in reducing the practice of child marriage in both countries. The quality of the schools is less of a factor. This does not mean that the schools are of good quality, but simply that other factors play a more important role. One could also argue that poor quality is probably leading to lack of interest in pursuing their education for many children. The “other” category is very large, although for different reasons depending of the country, and it seems to reflect data issues in some of the countries.

Factors explicitly related to VIAS account only for a small share of the reasons for not being in school full-time in the Young Lives Surveys. The estimates are at 1.2 percent, 5.3 percent, and 1.9 percent for India, Ethiopia, and Vietnam. But other reasons for not being in school full-time, especially the truancy/lack of interest category, may be due in part to VIAS. If one were to assume that about one-tenth of the truancy/lack of interest reasons actually reflect issues related to VIAS, then the proportions of drop-outs related to VIAS would increase to 3.0 percent in India, and 6.2 percent for both Ethiopia and Vietnam. In Chapter 5, when considering the economic costs of VIAS related to children dropping out of school, we will assume that across countries, about five percent of children may be dropping out due to VIAS. This is admittedly a rough estimate, but not an unreasonable one given the available data.

One factor that may lead to relatively small shares of parents stating that violence in school is a reason for not being in schools is the normalization of violence. Parents may consider use of corporal punishment as a legitimate way to discipline children and may not fully assess the consequences on the wellbeing and health of girls and boys. Similarly, bullying can be interpreted as a ‘normal’ experience in the schooling life of a child. As such, and given qualitative research showing the widespread acknowledgement that different forms of violence happen in and on the way to schools, such results may underestimate the potential impact of violence in school. Still, overall, the estimates from the Young Lives Surveys suggest that VIAS play a role for drop outs, but is not the main factor. This finding is based on parental responses on reasons why their children dropped out of school, but it is corroborated by other data that include questions to children themselves or to teachers and principals as to the reasons for drop-outs. As an illustrative example, consider data for Egypt where questions are asked to youth as to why they dropped out or did not pursue their studies, and Uganda where questions on the reasons children/youth drop out are asked to teachers and principals:

- **Questions asked to youth:** In Egypt, questions are asked to youth in the 2014 Panel Survey of Young People in Egypt (SYPE) as to why they did not pursue their education. More than 20 potential reasons are provided in the questionnaire. Two of those reasons relate to VIAS, namely (i) Maltreatment from teachers or corporal punishment/Disciplinary reasons; and (ii) Bullying. The other reasons are (in no particular order): I finished my studies; Lack of schools for further study; School fees; Private tutoring fees; The school is too far; I had to help out at home; I had to work; Helping a family member in his/her work; My parents didn’t want me to go to school; My father does not want me to go to school; I didn’t want to finish school; Not doing well in

Table 2.11: Reasons for Not Being Full-time in School, Young Lives Data (%)

	India			Ethiopia			Vietnam		
	Girls	Boys	All	Girls	Boys	All	Girls	Boys	All
Violence	0.0	2.5	1.2	5.5	5.2	5.3	2.4	1.3	1.9
Truancy and no interest	26.3	9.8	17.8	9.8	8.8	9.5	46.2	38.2	42.8
Affordability	45.6	44.2	44.9	19.6	20.9	20.4	9.4	16.7	12.4
Gender	4.4	0.6	2.5	7.1	6.5	6.9	5.1	3.0	4.2
Quality	0.6	11.0	5.8	0.3	1.6	0.9	0.3	3.4	1.6
Others	23.1	31.9	27.7	57.7	57.0	57.2	36.6	37.3	37.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Authors’ estimations using Young Lives data.

school; To avoid mixing with the opposite sex; Marriage; For health reasons; Habits and traditions; Passed the school enrollment age; Other (specify); Refused to answer. The main reasons invoked for dropping out or not pursuing one's studies are the fact that students completed their studies (70.2 percent of responses), and the fact that they did not want to finish school (13.0 percent). Other reasons are less frequently mentioned. Maltreatment from teachers or corporal punishment/Disciplinary reasons is mentioned by 0.7 percent of youth, and bullying is mentioned by less than 0.1 percent. VIAS could however lead students not to be interested in furthering their education.

- **Questions asked to teachers/principals:** In Uganda, the question asked in national surveys to parents on the reasons why their children dropped out typically do not include modalities related to VIAS. However, a question asked to principals in the Community Facility Questionnaire of the Uganda National Panel Survey implemented from 2009 to 2011 does implicitly, since discipline is one of the factors and it could be considered as a proxy for the risk of perpetrating VIAS (although other behaviors are likely to be included as well). At the secondary level, according to 6.9 percent of principals, discipline was the main factor leading boys to drop out of school. For girls, the proportion was 2.5 percent. This suggests that in Uganda, violence may be a factor for dropping out. For boys, lack of interest, cost, and searching for a job were the top three reasons. For girls, the top three reasons were pregnancies, marriages, and cost⁷⁴ (noting that violence could be one of the reasons leading to pregnancies and marriage). Note also that in the PASEC student assessment, “lack of security” is in the top 5 reasons for student dropout according to teachers.

These estimates for Egypt and Uganda with questions asked to youth or teachers and principals as opposed to parents yield estimates of the role of VIAS in drop-outs of the same order of magnitude (or smaller in the case of Egypt) as those from parents in the Young Lives Surveys. This general order of magnitude for the potential share of students dropping out due to VIAS is not really a surprising result – apart from VIAS, many other reasons are likely to play a more

important role in the decisions by children to drop out of school or to not continue their education. But the result is important for estimations of the potential cost of inaction towards VIAS (as discussed in Chapter 5), and for assessing the potential benefits to costs ratios for investments in interventions to prevent VIAS (as discussed in Chapter 8).

Before concluding this section, one last caveat should be noted not to underestimate the potential impact of VIAS as a factor leading to drop-outs indirectly. Consider West Africa. In Niger, the 2015 ENISED (*Étude nationale d'évaluation d'indicateurs socio-économiques et démographiques*) survey includes 16 potential responses for dropping out of school or not continuing one's education: Too old or too young; [Enough] schooling completed; No school or too far away; Family did not want more schooling; Cost too high; Preference to work; Agricultural work; Domestic work; Pregnancy; Marriage; Schooling not adapted; Not useful/no interest; Illness or handicap; Failure at exam; No employment prospect from schooling; and Other. None of these modalities refers to VIAS. Yet this does not mean that VIAS plays no role in children dropping out. Child marriage (and early pregnancies) are a key reason for girls to drop out and they may be related to the school environment⁷⁵. Indeed, qualitative work that suggests that some parents do not send their adolescent girls to school because they fear they may become pregnant in school – this is the case in Niger, but also in other countries, including Burkina Faso and Ghana⁷⁶. The risk of sexual harassment on the way to school or back from school is also real in many countries, even if the available data in most surveys are insufficient for providing a quantitative assessment of the potential impact of VIAS on the likelihood of dropping out.

COMPLETION RATES AND EDUCATIONAL ATTAINMENT

VACS DATA

Another way to look at the potential impact of VIAS is through surveys that have measures of both VIAS and educational attainment, such as the violence against children surveys (VACS). As mentioned in previous chapters, the data are publicly available for eight countries, so these are the datasets used here (Cambodia, El Salvador, Haiti, Honduras,

⁷⁴Wodon et al. (2016).

⁷⁵Perlman et al. (2018).

⁷⁶Gemignani and Wodon (2017).

Kenya, Malawi, Nigeria, and Tanzania). The surveys cover all forms of violence, not only at school, but also elsewhere, to these are the variables for which potential impacts are estimated⁷⁷. The focus here is on the probabilities of completing primary and secondary school, the probabilities of attending school, and educational attainment as measured through years of schooling. The data covers children and youth aged 13-24 and various age brackets are used for the various outcomes. Given the time needed to complete various cycles, for primary school the focus is on children aged 13-17, while for the completion of secondary school, the focus is on youth aged 18-24.

Key results are provided in Table 2.12. A distinction is made between physical violence leading to injuries, and physical violence not leading to an injury. Note that all locales for violence are included (school, family, and community). The interpretation of the results is again in percentage points for most indicators, although in the case of the years of schooling, the interpretation is in terms of the number of years completed. For example, a child victim of physical violence leading to an injury may be 5.9 percentage points less likely to complete primary school. The potential impact of physical violence without an injury on primary school completion is a bit smaller at 5.9 percentage points. When potential impacts are statistically significant, they are all suggesting worse educational outcomes.

The evidence of potential impact seems stronger for physical violence, especially when leading to an injury, than for other types of violence, although emotional violence is associated with a reduction in years of schooling. The evidence also

seems stronger for primary than secondary education, possibly because in the countries where a VACS is available, a smaller share of students complete the secondary level and those students tend to be from more privileged backgrounds and may be less exposed to VIAS. In the case of physical violence with injury, the expected years of schooling completed are reduced by almost four-tenths of a year. For emotional violence, the reduction is at less than one tenth of a year. Physical and sexual violence are also associated with a reduction in the likelihood of attending school, whether for the full sample or for the sample of children aged 13-17. As always, these results should be considered as tentative given limitations of the data and the fact that they represent associations and possibly not causal affects.

Table 2.13 provides simulations of potential benefits from ending violence against children. Note again that violence in all locales is considered. If violence were eliminated, the share of students completing primary school could increase by 1.1 percentage point, a proportional gain of 2.8 percent from the base. When considering younger children however (those aged 13-18), the potential impact is larger both in absolute and proportional terms, in part because the base is smaller, and because children affected by violence may not have completed the cycle yet if they repeated a grade. For the likelihood of attending school, the effects of ending violence against children are of the same order of magnitude. For secondary completion, simulations are not conducted since the marginal effects in Table 3.14 are not statistically significant. Finally, in terms of years of schooling, the simulations suggest a gain from the elimination of violence against children, but this gain is

Table 2.12: Potential Marginal Impacts of Violence by Type on Education Outcomes, VACS

	Physical with Injury	Physical without Injury	Emotional	Sexual
Completion of Cycle				
Primary Completion (Full sample)	-0.059	-0.021	NS	NA
Primary Completion (Age 13-17)	NS	-0.049	NS	NA
Secondary Completion (Age 18-24)	NS	NS	NS	NS
Currently Attending				
Attending (Full sample)	-0.068	NS	NS	-0.105
Attending (Age 13-17)	-0.109	NS	NS	-0.080
Educational Attainment				
Years of schooling	-0.387	NS	-0.076	NS

Source: Authors' estimations using VACS data.

Note: Violence may take place in or around schools, as well as in the family or in the community.

⁷⁷This is done by pooling the data for the eight countries together, and controlling for other factors that may affect violence against children. Unfortunately, relatively few such controls are available in the VACS data, so the risk of omitted variable bias cannot be avoided as in other regressions in this study.

fairly small, especially considering that all forms of violence are included. Still the suggested effect from the regression analysis is positive, confirming in a way the analysis of the reasons to drop out of school.

CROSS-COUNTRY REGRESSIONS

As one more test of the potential impacts of VIAS on educational attainment, a cross-country dataset was created with measures of VIAS obtained at the national level from the GSHS and HBSC datasets. These measures were combined with other data at the national level from the World Bank’s World Development Indicators, including measures of (1) the expected years of schooling that individuals are likely to achieve; (2) the expected learning

achievement for individuals in the country, and (3) a combined measure in terms of the learning-adjusted years of schooling completed by a typical student in each country (the measure factors in not only the expected number of years of schooling a child is expected to complete, but also how much the child is expected to learn while in school). Results are tentative given the limitations of the data and the fact that cross-country regressions themselves suffer from various limitations, especially when few controls are included as is the case here (controls include the dependency ratio, the rate of urbanization, regions of the world, the adult literacy rate, and public expenditure for education as a share of GDP). Table 2.14 suggests that countries with higher shares of students involved in fights or bullied tend to do slightly less well especially on test scores.

Table 2.13: Potential Marginal Impacts of Violence by Type on Education Outcomes, VACS

	Predicted Share under baseline conditions	Absolute Predicted Change in Share	Proportional Predicted Change in Share
Completion of Cycle			
Primary Completion (Full sample)	80.71	1.10	2.76
Primary Completion (Age 13-17)	68.47	1.66	8.08
Secondary Completion	NA	NA	NA
Currently Attending			
Attending (Full sample)	54.02	1.82	5.64
Attending (Age 13-17)	78.12	1.55	3.59
Educational Attainment			
Years of schooling	6.87	0.02	0.41

Source: Authors’ estimations using VACS data.

Note: Violence may take place in or around schools, as well as in the family or in the community.



Table 2.14: Cross-country Regression for the Potential Impact of VIAS on Educational Outcomes

	Fewer controls			More controls		
	Expected Years of Schooling	Test Scores	Adjusted Years of Schooling	Expected Years of Schooling	Test Scores	Adjusted Years of Schooling
Fights	NS	-0.005	-0.008	NS	-0.005	NS
Injuries	NS	NS	NS	NS	NS	NS
Bullying	0.002	NS	NS	NS	NS	NS

Source: Authors' estimations using VACS data.

INDIRECT EFFECTS THROUGH EDUCATIONAL ATTAINMENT⁷⁸

The focus in this section is on the indirect potential impact of VIAS through educational attainment on earnings, labor force participation, and perceptions of standards of living. The previous analysis suggests that VIAS has negative direct potential impacts on schooling and learning. How large the impacts are remains open to debate, but the fact that there are potential impacts is clear. In addition, through both schooling and learning, VIAS then has an indirect potential impact on labor force participation and earnings for children as they become adults, as well as other outcomes. This is the focus for this section. The analysis focuses on some of the benefits of higher educational attainment. How these benefits can in turn be used to estimate the potential cost of inaction for not preventing VIAS will be discussed in subsequent chapters based on estimates of the reduction in educational attainment, and especially in the likelihood of not completing secondary school due to VIAS. Impacts on learning will also be considered.

EXPECTED EARNINGS

By affecting children's educational attainment, VIAS may affect their productivity in adulthood. Consider first the benefits from educational attainment for earnings. There is a large body of literature on this topic⁷⁹ with the benefits from educational attainment typically measured through regression analysis whereby the potential impacts on earnings of educational attainment and experience (measured as age minus six and the number of years of schooling) are estimated. In some models, the focus is on the correlation between years of schooling and earnings, and the implicit gain associated with each additional year of schooling. Other models look at the potential impact of different levels of schooling, such as having a primary, secondary, or tertiary

education - on earnings. Apart from educational attainment and experience, the models may also control for other variables that may affect earnings.

For this study, estimates of the potential impact of education on earnings are based on wage regressions estimated using the GLD database⁸⁰. The aim is to assess the potential impact on earnings of both educational attainment and learning – with literacy as a proxy for learning. Specifically, for individuals with a primary education or less, a distinction is made between individuals reporting being literate and those declaring not to be. To test for differences in the returns to education by gender, models are estimated separately for men and women. Some models include only experience and its squared value as additional correlates, while other models include more controls.

Table 2.15 provides the main results in terms of average coefficient estimates across countries and surveys. As expected, gains in earnings associated with educational attainment are substantial, especially at the secondary and tertiary levels. They are much lower at the primary level. For example, for women with primary education (partial or completed) who are literate, the average expected gain in earnings versus no education and no literacy (the reference category) is 39.8 percent. By contrast, for women with secondary education, the average gain compared to no schooling and no literacy is much larger at 129.1 percent. For women with tertiary education, the average gain is 386.7 percent.

Clearly, men and women with higher educational attainment and literacy in the case of primary education earn more than those with no education and no literacy, but the gains start to be much larger at the secondary and tertiary levels. Also important is the quality of the education received, as proxied by whether individuals declare being literate or not. When

⁷⁸This section is adapted from Wodon et al. (2019).

⁷⁹See Psacharopoulos and Patrinos (2018) for a review.

⁸⁰Montenegro and Wodon (2019).

individuals have a primary education but are not literate, the gains are virtually non-existent versus having no education at all. When individuals have a primary education and are literate, the gains are larger, and when individuals are literate but do not have a primary education, the gains are almost as

large as when they have a primary education and are literate. In other words, going to primary school without learning does not generate gains, which helps to emphasize the need for learning in school apart from simply going to school or completing a cycle.

Table 2.15: Potential Impacts of Education on Earnings for Men and Women (Percentage Gains, %)

	Full Sample		Latest Year per Country	
	Men	Women	Men	Women
No education and illiterate	Ref.	Ref.	Ref.	Ref.
No education and literate	21.9	30.3	15.8	37.4
Primary education and illiterate	3.6	7.8	6.7	-2.8
Primary education and literate	35.1	39.8	23.6	33.6
Secondary education	101.9	129.1	75.8	108.4
Tertiary education	301.7	386.7	233.2	350.0

Source: Authors' estimation using GLD database.

Note: Reported estimates based on the average value of regression coefficients across countries. The exponential transformation (given that the dependent variable is the logarithm of earnings) is taken for the average coefficient.

LABOR FORCE PARTICIPATION

Through its impact on educational attainment, VIAS may also affect labor force participation in adulthood. Indeed, apart from leading to higher expected earnings for working men and women, a higher level of educational attainment may also increase their labor force participation or the number of hours that they work, especially for women. When women are better educated, the opportunity cost of not working or only working part time increases, which may lead more women to enter the labor force, or work full time instead of part time. To measure the potential effect of educational attainment on labor force participation, the analysis relies on data from the Gallup World Poll for many countries. The data allows analysis of the potential impact of educational attainment on employment status.

Table 2.16 provides results on the potential effects of educational attainment on labor force participation. For women, for example, having a secondary education level is associated with a 9.6 percentage points increase in the likelihood of working versus primary education or less. With tertiary education, the potential effect on labor force participation is an even larger gain at the margin of 25.4 percentage points in comparison to a primary education or less. As women with higher levels of education are more likely to enter the labor force, this may result in increases in the likelihood of working full time, working part-time, or being unemployed. In terms of type of employment, the largest increase at the margin from more education is for full-time work. There is also an increase for part time work and unemployment, but to a lower extent and this is not always statistically significant.

Table 2.16: Potential Impact of Educational Attainment on Labor Force Participation

	Men		Women	
	Secondary (vs. Primary)	Tertiary (vs. Primary)	Secondary (vs. Primary)	Tertiary (vs. Primary)
Labor force participation	0.02	0.08	0.096	0.254
Working full-time	0.05	0.13	0.090	0.256
Working part-time	-0.02	-0.02	NS	0.005
Being unemployed	0.00	-0.02	0.008	NS

Source: Authors' estimation using Gallup World Poll.

Note: Regression estimates reported for the pooled sample that includes data for more than 100 countries. NS means that an estimate is not statistically significant at the 10 percent level.

STANDARDS OF LIVING

Finally, through its effect on educational attainment, VIAS may affect standards of living in adulthood. By increasing earnings and labor force participation for men and women in adulthood, higher levels of educational attainment contributes to poverty reduction in several ways. Poverty is usually measured by comparing a household's level of income or consumption per capita (or per equivalent adult) with a poverty line that captures the resources needed by households to meet their basic needs. The most important pathways for potential impact are therefore likely to be related to (1) higher earnings and consumption for women and their household; and (2) a reduction in household size and household needs through lower fertility. Higher educational attainment for men and women helps not only by increasing the numerator (higher income or consumption), but also by reducing the denominator (smaller households). This study does not provide measures of the

potential impact of educational attainment on monetary poverty, but impacts are likely to be large⁸¹. Using data from the Gallup World Poll, the potential impact of educational attainment on perceptions of standards of living can be assessed. Results are provided in Table 2.17. Consider again the case of women. When they have a secondary education level, they are seven percentage points more likely to state that they have enough money to buy food in comparison to women who have only a primary education or less. With tertiary education, the potential effect for the perceived ability to satisfy food needs is a gain at the margin of 12 percentage points in comparison to a primary education or less, even though individuals with higher levels of educational attainment have on average higher expectations for their own standards of living. All measured potential impacts of secondary or tertiary education in comparison to lower levels of education in Table 3.19 are positive and statistically significant.

Table 2.17: Potential Impact of Educational Attainment on Women's Perceptions of Standard of Living

	Men		Women	
	Secondary (vs. Primary)	Tertiary (vs. Primary)	Secondary (vs. Primary)	Tertiary (vs. Primary)
Not enough money for food	0.02	0.08	-0.07	-0.12
Not enough money for shelter	0.02	0.05	-0.03	-0.06
Satisfied with standard of living	0.004	0.02	0.02	0.07

Source: Authors' estimation using Gallup World Poll.

Note: Regression estimates reported for the pooled sample that includes data for more than 100 countries. NS means that an estimate is not statistically significant at the 10 percent level.

⁸¹UNESCO (2017).



CHAPTER 3

MULTI-PRONGED NEGATIVE IMPACTS ON CHILDREN BEYOND EDUCATION AND EARNINGS

Students who are repeatedly victimized by violence or bullying may suffer from a broad range of emotional and behavioral problems, including sleep disturbances, separation anxiety, hyper-vigilance, physical complaints, irritability, regression, emotional withdrawal, blunted emotions and distractibility. Inevitably, bullying and violence have consequences lasting well beyond the formative school years. For example, students who are bullied are more likely to engage in risky behaviors, such as drinking at an early age, using drugs, and engaging early in sexual activities. Violence also affects students who witness it even if they are not direct victims. Although bystanders to school violence and bullying may not feel the direct impacts of it, they can experience lasting psychological and emotional scars. Research shows that student bystanders often feel harm through vicarious injury, which may trigger personal insecurities and contribute to trauma, shame or guilt from not intervening to stop an attack (especially for students who are highly empathic), fear and anxiety that they may be victims of violence or bullying next, and concern about participating in violence and bullying resulting from peer pressure from friends. VIAS also has negative inter-generational effects. Lack of education for mothers is correlated with higher fertility rates, poor health outcomes for their children, and household poverty.

The focus in this chapter is on impacts for students directly victimized, versus those witnessing violence, and includes the inter-generational effects of violence. This chapter provides

evidence of potential impacts in the following areas: (1) Health, well-being, and nutrition; (2) Fertility and population growth; (3) Decision-making, agency, and other impacts; and (4) Perpetration of violence. It is again important to emphasize that violence in schools can have both direct and indirect impacts on children. While in Chapter 4, most potential impacts of VIAS were estimated directly, in this chapter, after considering estimates of the potential impacts of VIAS on student’s well-being (including in terms of mental health) and risky behaviors from school health surveys, due to data limitations the focus is primarily on the indirect potential impacts of VIAS through its effect on child marriage, early childbearing, and educational attainment.

INJURIES

Physical violence especially can lead to injuries, which may have important health consequences for students and healthcare costs for parents. The two main datasets to estimate the risk of injuries from VIAS in schools are the GSHS data mostly for developing countries and the HBSC for Europe, Canada, and a few countries from the Middle East and North Africa. The datasets do not specifically identify injuries from VIAS, but in both cases, questions are asked about circumstances for injuries. The categories most likely to reflect at least in part VIAS are “I was attacked or abused or was fighting with someone” for the GSHS, and “Fighting” for the HBSC. Data on the share of students involved in fights in schools, the share of students injured (all reasons included), and the share injured through fights are provided in Table 3.1. As discussed in previous chapters, fights are substantial for both boys and girls in both surveys, suggesting a high level of aggression and correlated issues in terms of pacific coexistence in schools and school climate. Injuries from fights are, as expected, much more likely for boys than girls.

Table 3.1: Injuries from Fights, GSHS and HBSC Data

	GSHS Data			HBSC Data		
	Fought	Injured	Injured from Fight	Fought	Injured	Injured from Fight
Boys	37.4	37.4	2.3	45.3	49.1	2.6
Girls	17.1	24.9	0.6	18.5	40.1	0.9
Total	27.6	31.3	1.5	31.6	44.5	1.8

Source: Authors’ estimations using GSHS and HBSC data.

RISKY BEHAVIORS AND PERCEPTIONS OF HEALTH AND WELL-BEING

GLOBAL ANALYSIS

As violence is the result of the accumulation of context-based risk factors, that in turn can be reinforced and perpetuated as a consequence to violence, thus feeding a self-perpetuating vicious cycle, it is important to highlight and critically analyze impacts of VIAS on risky behaviors, health, and wellbeing. The analysis conducted in this section with GSHS, HBSC, and PISA data is similar in approach to what was done for schooling and learning in the previous chapter. Data are available for a wide range of indicators. For example, for the GSHS data, information is available on perceived health (difficulty to sleep), risky behaviors (ever smoked, ever used alcohol, ever used drug, ever has sex), and psychological well-being (ever considered suicide, ever planned to commit suicide, ever attempted to commit suicide). The indicators available in the HBSC data also cover perceived health (self-assessment of health, having headaches, having stomach-ache, having back-ache, difficulty to sleep), risky behaviors (ever had sex, ever smoked, ever drank alcohol, ever used cannabis) and psychological well-being (feeling low, feeling irritable, feeling nervous, and feeling dizzy). In some cases, multiple answers can be provided by students, for example ranging from strongly agree to strongly disagree, but variables have been dichotomized (yes/no coding) to facilitate interpretation of the results. The same controls are used for the analysis of the potential impacts of VIAS as in the previous chapter. Detailed data on perceptions of health and well-being as well as risky behaviors are also available in the HBSC and PISA datasets.

Table 3.2 provides the key results. Virtually all the potential impacts are again statistically significant, which suggests systematic negative potential impacts. Note that for self-assessment of health, the sign of marginal impacts is negative, which indicates a worse self-assessment. As in the previous chapter, the interpretation of the coefficients is in percentage points. For example, for the likelihood of having difficulties to sleep in the GSHS data, the coefficient 0.058 for physical fights suggests that controlling for other factors that may affect this perception, being involved in a physical fight is associated with an increase in the likelihood of having difficulties to sleep of 5.8 percentage point. With the GSHS data, only one effect is not statistically significant (indicated by NS in the table), for the potential impact of bullying

on the likelihood of having ever used cannabis. Similarly for the HBSC estimates, only one effect is statistically not significant. In the case of PISA data, more effects are statistically not significant, but most effects are statistically significant with the expected sign.

What might be the aggregate potential impact on these various outcomes if VIAS were completely eliminated (for injuries, only those related to fights are included in the simulations since not all injuries are related to VIAS)? As before, the potential benefits from ending VIAS depend on both the sign and magnitude of the marginal impacts estimated through the regression analysis, and the share of students experiencing each form of VIAS. Table 3.3 provides the results. The first two columns provide the baseline predicted values of the various indicators, considering first a simple average across countries without country population weights, and next an average accounting for the difference between countries in the size of their student body. Consider as one example the likelihood of having difficulties sleeping in the GSHS data. With student population weights by country, just over a third of students (37.1 percent) declare having difficulties to sleep. This could potentially be reduced by 6.9 percentage points by eliminating VIAS according to the regressions, or 16.4 percent from the base, which is large. Other results in the Table can be interpreted in a similar way, suggesting potentially large impacts of VIAS on outcomes with all three datasets.

Table 3.2: Marginal Potential Impacts of VIAS on Various Outcomes

	Physical Attack	Physical Fight	Injured	Bullied
GSHS Data				
Perceived health				
Difficulty to sleep	0.058	0.037	0.109	0.125
Risky behaviors				
Ever smoked	0.051	0.118	0.055	0.065
Ever used alcohol	0.049	0.139	0.069	0.078
Ever used drug	0.021	0.042	0.031	0.018
Ever has sex	0.031	0.097	0.038	0.027
Psychological well-being				
Ever considered suicide	0.044	0.036	0.049	0.072
Ever planned to suicide	0.039	0.035	0.041	0.06
Ever attempted to suicide	0.068	0.038	0.061	0.069
HBSC Data				
Perceived health				
Good self-assessment of health	-	-0.028	-0.020	-0.043
Having headaches	-	0.071	0.099	0.079
Having stomach-ache	-	0.077	0.093	0.080
Having back-ache	-	0.078	0.091	0.069
Difficulty to sleep	-	0.068	0.077	0.079
Risky behaviors				
Ever had sex	-	0.165	0.045	-0.000
Ever smoked	-	0.129	0.033	0.017
Ever drank alcohol	-	0.181	0.056	0.024
Ever used cannabis	-	0.109	0.032	NS
Psychological well-being				
Feeling low	-	0.085	0.051	0.142
Feeling irritable	-	0.102	0.058	0.079
Feeling nervous	-	0.080	0.051	0.094
Feeling dizzy	-	0.074	0.106	0.086
PISA Data				
Perceived health				
Difficulty to sleep	NS	0.022	NS	0.089
Poor self-assessment of health	0.004	NS	NS	0.004
Having headaches	-0.028	NS	-0.018	0.079
Having stomach-ache	NS	0.034	NS	0.072
Having back-ache	NS	0.035	0.021	0.062
Psychological well-being				
Feeling depressed	NS	0.015	NS	0.124
Feeling irritable	-0.046	NS	NS	0.095
Feeling nervous	-0.041	0.017	NS	0.073
Feeling dizzy	0.026	0.042	0.018	0.096
Feeling anxious	NS	0.021	NS	0.111

Source: Authors' estimations using GSHS and HBSC data.

Note: NS means statistically not significant at 0.1 level.

Table 3.3: Simulations of Potential Impacts of Ending VIAS on Perceptions of Well-being, GSHS/HBSC

	Predicted Share Under Baseline Conditions		Potential Impact of VIAS		Share Associated with VIAS	
	Simple Average	Weighted Average	Simple Average	Weighted Average	Simple Average	Weighted Average
GSHS Data						
Perceived health						
Difficulty to sleep	37.1	31.0	6.9	5.2	16.4	13.7
Risky behaviors						
Ever smoked	16.6	19.0	5.8	5.2	28.5	21.8
Ever used alcohol	31.4	24.1	6.5	5.0	21.4	18.2
Ever used drug	8.9	10.6	3.7	3.4	31.9	24.5
Ever has sex	10.8	9.7	3.6	3.0	28.2	22.5
Psychological well-being						
Ever considered suicide	13.7	13.0	4.7	3.5	27.3	21.8
Ever planned to suicide	11.1	9.2	3.8	2.8	27.1	21.8
Ever attempted suicide (*)	9.3	8.6	4.2	3.2	32.9	26.3
HBSC Data						
Perceived health						
Poor self-assessment of health	13.5	14.5	2.1	2.3	14.0	14.0
Having headaches	52.6	53.7	4.2	4.3	7.7	7.7
Having stomach-ache	47.9	49.5	4.3	4.4	8.8	8.7
Having back-ache	40.1	41.0	4.1	4.2	9.6	9.6
Difficulty to sleep	48.6	50.0	4.1	4.2	7.8	7.8
Risky behaviors						
Ever had sex	10.4	10.2	3.1	3.1	19.3	19.4
Ever smoked	17.5	18.3	4.3	4.5	20.9	20.8
Ever drank alcohol	38.6	39.0	5.2	5.2	13.0	13.0
Ever used cannabis	6.6	6.8	2.0	2.1	21.2	21.0
Psychological well-being						
Feeling low	50.3	51.9	5.9	6.0	11.0	11.0
Feeling irritable	66.1	67.9	5.1	5.1	7.5	7.3
Feeling nervous	62.2	63.6	4.8	4.9	7.4	7.4
Feeling dizzy	31.9	32.9	4.5	4.6	12.4	12.4
PISA Data						
Perceived health						
Difficulty to sleep	48.8	49.9	3.4	3.5	5.6	5.9
Poor self-assessment of health	0.6	0.7	0.2	0.2	17.3	18.4
Having headaches	60.3	60.8	1.5	1.6	2.2	2.3
Having stomach-ache	54.4	55.1	3.1	3.3	5.2	5.4
Having back-ache	55.6	56.3	3.2	3.3	5.0	5.2
Psychological well-being						
Feeling depressed	59.8	60.4	3.1	3.3	4.4	4.6
Feeling irritable	57.5	58.4	1.9	2.0	2.8	2.9
Feeling nervous	56.2	57.1	1.9	2.0	3.0	3.1
Feeling dizzy	33.4	34.6	4.6	4.9	10.3	10.7
Feeling anxious	52.2	53.0	3.8	4.0	6.0	6.3

Source: Authors' estimations using GSHS and HBSC data.

Note: The simple average is an average values across all countries without considering differences in student population between countries. The weighted average factors in the countries' student population. (*) The proportion of children attempting suicide is high and there may be an issue of data quality (e.g., some children saying they attempted suicide also say they did not consider or plan a suicide).

ANALYSIS WITH VACS DATA

Self-perceptions of the health and well-being of children and youth can also be assessed with VACS. As previously mentioned, data are publicly available for eight countries (Cambodia, El Salvador, Haiti, Honduras, Kenya, Malawi, Nigeria, and Tanzania) and these datasets are used for this analysis. The surveys cover violence at school and in the family and community. The analysis is performed by merging the datasets and exploring correlates of a dozen indicators. The focus is on the potential impacts of physical, emotional, and sexual violence controlling for other factors that could affect those indicators (relatively few controls are available in the VACS data, so there is a risk of omitted variable bias).

Outcomes are considered in four areas: Friends and attitudes (whether individuals often talking to friends about important things, and whether they do not tolerate attitudes that are detrimental to women in terms of both wife beating and sexual practices); Sexual and reproductive health (whether girls got married before the age of 18, had a first child before the age of 18, or had sex before the age of 18); Trust (whether individuals trust people in neighborhood, and whether they feel close to their biological mother and father); and Health and well-being (whether individuals feel bad about their own health, whether they had suicidal thoughts, and whether they feeling safe in their neighborhood).

On tolerance towards wife beating, the question is whether it is right for a man to hit or beat his wife if she goes out without telling him, if she does not take care of the children, if she argues with him, if she refuses to have sex with him, or if she burns the food. As to the tolerance question related to sex, the questions are whether men, not women, should decide when to have sex; Men need more sex than

women; Men need to have sex with other women, even if they have good relationships with their wives; Women who carry condoms have sex with a lot of men; A woman should tolerate violence to keep her family together; and finally, A woman should not complain to anyone when she is beaten or otherwise abused by her man in order to keep the peace in the family. Analysis is conducted with both dichotomic variables combining the categories and an overall index for both questions. Similar results are obtained.

Key results are provided in Table 3.4. As in the previous chapter, episodes of violence in all locales are considered, not only those taking place in and around schools. A distinction is made as to whether physical violence leads to injuries or not. The interpretation of the results is in percentage points. For example, having been the victim of emotional violence is associated with a reduction in the likelihood of often talking to friends about important things of 2.6 percentage points. As another example, having been the victim of sexual violence reduced by 2.0 percentage points the lack of tolerance towards wife beating, which means that tolerance towards wife beating increases. When potential impacts are statistically significant, they lead to worse outcomes, with few exceptions. For child marriage, the effects are also statistically significant, even though they are small. The largest impact is for emotional violence and feelings about one's health. The second largest potential impact is for the relationship between sexual violence and having sex before the age of 18, but this may reflect the fact that sexual violence may be forced sex. Other potential impacts of violence on the outcomes that are near or above 10 percentage points are for indicators related to feelings about one's health and suicidal thoughts. This is observed for both physical violence with an injury and sexual violence.





Table 3.4: Potential Marginal Impacts of Violence (All Locations) on Various Outcomes, VACS

	Physical Violence with Injury	Physical Violence without Injury	Emotional Violence	Sexual Violence
Friends and Attitudes				
Talking to friends (important things)	NS	NS	-0.026	NS
Lack of tolerance for wife beating	NS	0.012	-0.009	-0.020
Lack of tolerance for sexual practices	NS	NS	NS	-0.010
Sexual and Reproductive Health				
Child marriage	NS	0.000	0.000	0.000
Child pregnancy	0.043	NS	0.017	0.014
Having sex before 18	NS	NS	0.063	0.145
Trust				
Trust people in neighborhood	NS	-0.032	-0.106	-0.081
Feeling close to biological mother	NS	-0.021	-0.052	-0.016
Feeling close to biological father	-0.077	-0.034	-0.084	-0.042
Health and well-being				
Feel bad about one's health	0.125	0.065	0.177	0.099
Suicidal thoughts	0.104	0.028	0.095	0.056
Feeling safe in neighborhood	NS	NS	-0.048	-0.021

Source: Authors' estimations using VACS data.

Note: Violence may take place in or around schools, as well as in the family or in the community.

Table 3.5 provides simulations of potential benefits from ending violence against children. If all forms of violence were eliminated, some of the largest effects in percentage points changes are observed for the probabilities of feeling bad about one's health (reduction of 6.1 percentage points), trusting other people (increase by 6.0 points), having suicidal

thoughts having sex before the age of 18 (reduction by 4.9 points), and feeling close to one's biological father (increase by 4.9 points). In proportional terms from the base, however, the largest effects are observed for suicidal thoughts and for early childbearing (having a child before age 18)⁸².

⁸²Proportional changes are not equal in the Table to the absolute changes divided by the baseline values because simulations are conducted for each country, then aggregated (the mean of a ratio is not the ratio of the means).

Table 3.5: Simulations of Potential Impacts of Ending VIAS on Various Outcomes, VACS

	Predicted Share Under Baseline Conditions	Absolute Predicted Change in Share with no VIAS	Proportional Predicted Change in Share with no VIAS (*)
Friends and Attitudes			
Talking to friends (important things)	67.43	1.07	1.91
Lack of tolerance for wife beating	88.32	0.78	1.55
Lack of tolerance in other areas	93.09	0.39	0.45
Sexual and Reproductive Health			
Child marriage	20.43	-1.38	-5.37
Child pregnancy	9.60	0.81	28.90
Having sex before 18	38.04	-4.90	-12.88
Trust			
Trust people in neighborhood	71.54	6.03	10.96
Feeling close to biological mother	92.81	2.54	2.97
Feeling close to biological father	78.28	4.84	7.21
Health and well-being			
Feel bad about one's health	45.62	-6.09	-15.61
Suicidal thoughts	8.98	-5.26	-33.53
Feeling safe in neighborhood	84.98	2.87	5.14

Source: Authors' estimations using VACS data.

Note: (*) The proportional change is not the absolute change divided by the baseline because analysis is conducted for each country, then aggregated (the mean of a ratio is not necessarily the ratio of the means).

INDIRECT EFFECTS THROUGH EDUCATIONAL ATTAINMENT

The above analysis using a range of different surveys suggests that VIAS has negative direct potential impacts on health and well-being. It may also lead to an increase in the probability of having sex before the age of 18, marry before the age of 18 (although the effect is small), and have a first child before the age of 18. In addition, as discussed in Chapter 2, VIAS leads to lower educational attainment, leading students to drop out of school prematurely. For girls especially, this in turn may increase in many countries the likelihood that they will marry or have children as children. How large the impacts of VIAS are on various outcomes can be debated, but the fact that there are wide-ranging potential negative impacts is clear. This leads to a wide range of negative indirect potential impacts of VIAS on other indicators. This section considers these indirect impacts in four domains: (1) Fertility and population growth, including a discussion on child marriage and early childbearing since they are key drivers of fertility rates especially in low income countries; (2) Health and nutrition; (3) Decision-making and agency; and (4) Perpetration of violence. The analysis is adapted from a study at the World Bank on the cost of not educating girls⁸³.

⁸³Wodon et al. (2018).

⁸⁴Field and Ambrus (2008); Nguyen and Wodon (2014).

⁸⁵Wodon, Male, and Onagorwa (2020).

CHILD MARRIAGE, EARLY CHILDBEARING, FERTILITY, AND POPULATION GROWTH

There is a strong mutual relationship between girls' education and child marriage, defined as a girl entering in a formal or informal union before the age of 18⁸². Especially in countries where the prevalence of child marriage is high, parents often have their daughters marry early when they are not in school, in part, because of a concern that they may otherwise engage in sexual activity. In many contexts, a pregnancy outside of marriage leads to ostracism, thereby affecting a girl's prospects in life. As VIAS reduces educational attainment for girls, it also contributes indirectly to child marriage. Child marriage, in turn, is a key driver of teen pregnancies and early childbearing (having a child before the age of 18). There are differences between countries in the strength of those relationships. Still, for most developing countries, most women having a child before the age of 18 do so probably because of child marriage⁸⁵.

Analysis of DHS data suggests that keeping girls in school is one of the best ways to end child marriage and reduce the risk of early childbearing. There is also a strong relationship between girls' educational attainment, child marriage, and total (lifetime) fertility. Both low educational attainment and

child marriage lead women to have children earlier in life, and more children over their lifetime. The analysis considers the number of children that women have towards the end of their reproductive age⁸⁶. Analysis for developing countries based on DHS data suggests that having completed secondary education is almost always associated with a reduction in total fertility in comparison to no education or incomplete primary. In addition, because universal secondary completion could virtually eliminate child marriage, this would lead to an additional reduction in total fertility rates. Overall, the analysis suggests that universal secondary education could lead to a reduction in total fertility of up to a third in two dozen countries for which analysis was undertaken⁸⁷.

Through its potential impact on total fertility, low educational attainment for girls and child marriage contribute to higher population growth, which weakens the ability of governments to provide basic services of sufficient quality to the population. It also reduces the ability of countries to benefit from the demographic dividend, with major implications for the population's standards of living.

HEALTH, NUTRITION, AND AGENCY

A lack of education may affect women's health as they may be less aware of how to take care of themselves when sick or injured. It may also lead to lack of knowledge about STDs. And through its impact on child marriage and early childbearing, a lack of education may lead girls to give birth at a young age, which increases risks of maternal mortality and morbidity⁸⁸. Other risks related to low educational attainment include malnutrition, isolation, depression, an inability to negotiate sexual and reproductive behaviors, higher risks of suffering from IPV, and a lower ability for women to make decisions related to their own healthcare.

Consider next children. Early childhood is critical for a child's development⁸⁹. Risk factors early in life may affect brain development and capabilities, with lasting consequences in adulthood, including the ability to earn a decent wage. A lack of educational attainment for mothers is associated with worse health outcomes among their children. This may be because better educated mothers have a better

understanding of what they need to do to care for a child when sick or injured. As low education attainment for mothers increases their risk of exposure to IPV, it may have spillover effects for children. Toxic stress⁹⁰ responses for children can have damaging effects on learning, behavior, and health. Even when children are exposed to IPV in utero, they tend to have worst health at birth and increased mortality rates.

Consider in particular the issues of under-five mortality and stunting. Stunting often results from persistent insufficient nutrient intake and infections and may lead to delayed motor development and poor cognitive skills later in life. Estimates of the potential impacts of a mother's education level on the risks of under-five mortality and stunting suggest that gains could be achieved from higher educational attainment for mothers. The same is true for birth registration as a higher level of educational attainment for mothers is positively correlated with the likelihood of registering their child at birth. These are just some of the beneficial effects of educational attainment – many others effects have been documented, including for agency and decision-making ability in a wide range of areas.

⁸⁶Onagoruwa and Wodon (2018). The term "total fertility" is defined here as the number of live births that a woman has over her lifetime. This definition is used for individual-level econometric work to measure the marginal impact of child marriage on fertility. By contrast traditional "total fertility rates" are population-level estimates.

⁸⁷Part of the potential effect of educational attainment and child marriage on total fertility may come from the use of modern contraceptive methods since such use tends to increase with higher educational attainment and when women do not marry as children, at least in some countries.

⁸⁸Nove et al. (2014).

⁸⁹Black et al. (2017).

⁹⁰Toxic stress refers to a child's response when experiencing repeated adversity, including physical and emotional abuse as well as economic hardship and exposure to violence in the household (such as intimate partner violence).

CHAPTER 4

COST OF INACTION

VIAS contributes to learning poverty, low educational attainment, and poor health, which in turn have major negative impacts for children, their future household and their own children, their communities, and societies as a whole. What are the economic costs associated with those impacts? For many impacts, this is a hard question to answer, but for a few, estimates can be provided. The focus in this chapter is on the higher levels of human capital wealth that could result from better health and educational outcomes if VIAS were eliminated. The analysis proceeds in three steps. First, a brief review of the literature on the cost of violence against children is provided. Next, we provide estimates of the potential cost of VIAS related specifically to its impact on children dropping out of school prematurely or not learning, and how this may affect earnings in adulthood. Finally, the chapter discusses briefly two other potential economic costs related to lower educational attainment due to VIAS – the costs related to population growth and under-five mortality and stunting. In low income countries, these costs may be large in comparison to prevailing standards of living, even if at the global level they may not be seen as large because the countries where population growth as well as under-five mortality and stunting are high account for a small share of global human capital wealth.

LITERATURE ON THE COST OF VIOLENCE AGAINST CHILDREN

Several studies have been conducted to estimate the economic costs of violence against children. Some of these studies are at the country level or focus on a few countries. One would expect that various studies would provide different estimates of the cost of violence against children – since both the prevalence of violence against children in its various forms and its economic costs may vary between countries. But differences in costs also relate to differences in methodology. In particular, some global estimates appear to be on the high side in comparison to estimates at the country level.

COUNTRY ESTIMATES

Selected country estimates are provided in Table 4.1. In the first study⁹¹ mentioned in the Table, costs were estimated in a simple way as the product of (1) the lifetime loss in earnings from dropping out of school before completing secondary school (expressed as a share of Gross Domestic Product); and (2) an assumed share of drop-outs due to violence against children, set at one percent or five percent, given that many other factors may lead children to drop out of school, especially in developing countries. The lifetime loss in earnings from dropping out of school versus earnings that would have been obtained if children had continued their education were estimated at 14.4 percent of GDP for Brazil, 4.6 percent for the United States, and 12.8 percent for India. If one percent of drop-outs are due to violence against children, the cost of violence against children due to lost productivity in adulthood would then be valued at 0.14 percent of GDP for Brazil, 0.05 percent for the United States, and 0.13 percent for India. When five percent of drop-outs are assumed to be due to violence against children, the estimates are five times larger. Even then, in all three countries, costs would be under one percent of GDP. In some cases costs as a share of GDP are higher (for Central American countries), and in other cases lower (for European countries).

⁹¹ Perezniето et al. (2010).

Table 4.1: Selected Country Estimates of the Economic Cost of Violence against Children

Countries/regions	Outcomes and Costs	Types of Violence	Cost	Share of GDP
Selected countries Perezniето et al. (2010)	Productivity costs due to lower educational attainment	Violence against children	Various	Less than 1%
United States Fang et al. (2012)	Health care costs, productivity losses, child welfare, criminal justice costs, special education	Nonfatal and fatal child maltreatment	US \$124 billion(2008)	0.84%
East Asia and Pacific Fang et al. (2015)	Illicit drug use, smoking, problem drinking, early sex, teenage pregnancy, self-harm, stomach pain, mental disorder	Violence against children	US \$206 billion (2012)	2.0%
China Fang et al. (2015)	Mental disorder, smoking, problem drinking, illicit drug use, self-harm	Violence against children	US \$101 billion (2013)	1.7%
Cambodia Fang (2015)	Health consequences and productivity losses from lower educational attainment	Violence against children	US \$251.3 Million (2013)	1.65%
Australia McCarthy et al. (2016)	Health costs, special education, criminal justice, housing, child protection, productivity losses, deadweight losses, impacts on lifespan and quality of life	Violence against children	US \$26.7 billion(2012)	1.5%
South Africa Fang et al. (2017)	Health and behavioral outcomes, fatal cases	Violence against children	US \$13.5 billion (2015)	4.3%
Nigeria UNICEF (2019)	Health outcomes and productivity losses due to lower educational attainment	Violence against children	US \$15.0 billion(2018)	2.7%
Australia Deloitte Access Economics (2019)	Health outcomes, productivity losses due to lower educational attainment, justice and housing	Violence against children & youth	AU \$34.2 billion billion(2016-17)	2.6%

Source: Compiled by the authors.

More detailed studies were conducted in recent years. Many of these studies suggest (lifetime) costs from violence against children at about two percent of (annual) GDP on average, with estimates ranging from 0.8 percent for the United States⁹² to 4.3 percent for South Africa. The fact that many of these estimates are higher than those based only on losses in earnings makes sense since additional costs are included, but this is not always the case. For example, a study for the United States⁹² puts the baseline economic burden of child maltreatment at US\$124 billion in 2008 (0.84 percent of GDP), although sensitivity analysis suggests that costs could be as high as US\$585 billion (close to four percent of GDP). The analysis is based on an estimated cost of US\$210,012 per child being maltreated with no fatal consequences (in 2010 dollars and with a discount rate of three percent). Two thirds of the costs of non-fatal maltreatment are from losses in productivity, with the rest related to other costs (childhood health care costs, adult

medical costs, child welfare costs, criminal justice costs, and special education costs).

The study for Nigeria⁹³ in Table 4.1 estimates that one in two children report being a victim of physical violence before the age of 18, with the proportions being at one fifth for emotional violence and one fourth for sexual violence. The economic costs for health outcomes (lost disability-adjusted life years or DALYs⁹⁴) associated with violence are valued at US\$8.9 billion (1.6 percent of GDP), while the cost in lost earnings is valued at US \$6.1 billion or 1.1 percent of GDP based on estimates of the marginal effect of violence on secondary school completion and the ensuing loss in earnings. This would yield a total cost of 2.7 percent of GDP.

As another example, the last study mentioned in Table 4.1 for New South Wales suggests costs at AU\$11.2 billion for that part of the country, of which AU\$2.3 billion are costs

⁹² Fang et al. (2012).

⁹³ UNICEF (2019).

⁹⁴ As defined by the WHO, one DALY represents the loss of the equivalent of one year of full health. DALYs for a disease or health condition are the sum of the years of life lost to due to premature mortality (YLLs) and the years lived with a disability (YLDs) due to prevalent cases of the disease or health condition in a population.

borne by the government, AU\$8.2 billion are costs incurring to individuals and communities, and AU\$600 million are costs borne out by the federal government. When the estimate is extrapolated for Australia as a whole, the cost of violence against children in the country is estimated at AU \$34.2 billion, which would represent about 2.6 percent of GDP (the authors do not provide this comparison of lifetime costs with annual GDP, but it is included in Table 5.1 for the purpose of comparing the result with the other estimates in the Table).

GLOBAL ESTIMATES

Table 4.2 provides summary results for two global studies. The first study⁹⁵ appears to follow the methodology adopted in the first study in Table 4.1, although details on estimations are not provided. The study focuses on losses in productivity due to lower educational attainment. It puts the cost of violence against children at up to US\$7 trillion globally or eight percent of global GDP. This estimate is the upper bound (highest cost scenario). A lower-cost scenario leads to costs valued at two to five percent of global GDP. In comparisons to estimates in Table 4.1, the costs appear to be on the high side, especially since these estimates account only for lost productivity in adulthood due to lower educational attainment, and not for other costs, as is the case for many studies mentioned in Table 4.1.

The second study in Table 4.2 attempts to measure the costs of multiple forms of violence – including welfare costs of collective violence as well as costs of interpersonal violence, harsh child discipline, IPV, and sexual abuse. The

study estimates a total cost of US\$9.5 trillion or 11 percent of global GDP. The cost of homicides is much larger than the cost of civil conflict, but the largest cost is for violence at home, the most prevalent type of violence affecting children as well as women. The cost of violence against children is estimated at \$3.7 trillion, of which \$3.6 trillion is related to child abuse, defined as being slapped on the face, head or ears, and/or beaten repeatedly with an implement. The other costs for children relate to the number of children being victims of homicides and reported child sexual violence. These costs are much lower, each at about one percent of the cost of child abuse, but prevalence may be underreported.

The estimate of \$3.6 trillion for child abuse is obtained by multiplying a cost per episode by the number of episodes. The cost per episode is based on data on the cost of assault from the Institute for Economics and Peace⁹⁷, with the authors noting that this cost is of a similar order of magnitude to the median cost in a review of the literature and the cost of non-fatal abuse reported for the United States in the second study in Table 4.1⁹⁸. The authors scaled up or down at the country level the cost per abuse by GDP per capita since costs observed for the United States would be too high for many other countries. The authors estimate the cost of child abuse at 4.2 percent of global GDP with major differences between regions. The cost at 1.9 percent of GDP in high income countries appears reasonable in comparison to the country studies in Table 4.1. However, for developing countries, the cost is higher. In sub-Saharan Africa, the estimate is at 19.9 percent of GDP, which seems unrealistic even if one acknowledges that the prevalence of violence is higher in that particular country.

Table 4.2: Selected Global Estimates of the Economic Cost of Violence against Children

Countries/regions	Outcomes and Costs	Types of Violence	Cost	Share of GDP
Global Pereznieta et al. (2014)	Productivity costs due to lower educational attainment	Violence against children	US\$ 2 trillion to US\$ 7 trillion	2% to 8%
Fearon and Hoeffler (2014)	Multiple outcomes with costs per episode of violence based on previous studies	Domestic child abuse	US\$ 3.6 trillion	4.2%

Source: Compiled by the authors.

⁹⁵ Pereznieta et al. (2014).

⁹⁶ Fearon and Hoeffler (2014).

⁹⁷ Institute for Economics and Peace (2014).

⁹⁸ Fang et al. (2012).

Table 4.3: Estimates and Components of the Changing Wealth of Nations

	Total Wealth in 2014 (US\$ trillions)	Per Capita Wealth in 2014 (US\$)
Total wealth	1,143.2	168,580
Produced capital	303.5	44,760
Natural capital	107.4	15,841
Human capital	736.9	108,654
Of which men	453.2	66,832
Of which women	283.6	41,823
Net foreign assets	-4.6	-676

Source: Lange et al. (2018).

OTHER STUDIES

Beyond studies providing national or global estimates for health and productivity costs (these are often the two largest categories of costs), other studies focus on other types of costs. For example, a USAID factsheet on the cost of school-related gender-based violence (SRGBV) suggests a cost of US\$17 billion in low and middle income countries⁹⁹. The estimate comes from the assumed impact of SRGBV on learning performance in international student assessments (at about 30 points), which may translate into the equivalent of a loss of one year of schooling due to lack of learning. Next, the analysis considers what that potential loss of one year of schooling represents in terms

of “wasted” public spending for primary education. This calculation is based on GDP in low and lower-middle income countries, the average share of GDP spent on education, the share of public funding allocated to primary schooling, and the median duration of the primary cycle. The loss of one year of schooling on average due to SRGBV amounts to US\$17 billion in lost public spending for education in low and middle income countries. The note suggests that the estimate is conservative since it only includes children who stayed in school and does not include other costs (such as losses in earnings in adulthood). Still, the estimated loss in investments in education is larger than total overseas development assistance for education which is about \$13 billion depending on the year.



⁹⁹ USAID (2015).

⁹⁵ This section is adapted in part from Wodon et al. (2018).

POTENTIAL LOSSES IN HUMAN CAPITAL WEALTH FROM VIOLENCE IN SCHOOLS¹⁰⁰

The costs of violence against children mentioned in global studies appear high in comparison to more detailed estimates for specific countries. This may be due to assumptions and data limitations. Importantly, estimates of costs as a share of GDP do not mean that year after year, that share of GDP is necessarily lost due to violence against children, since costs over a lifetime are compared to income (GDP) for a single year. This may not always be clear to readers not familiar with the methodology. Not all studies are affected by this issue, as it depends on how estimates are conducted, but some may be. To be consistent in the timeframes being used, it seems best to measure lifetime costs from violence. To do so, we rely on estimates of the wealth of nations, and more specifically on human capital wealth.

ESTIMATES OF HUMAN CAPITAL WEALTH

A country's wealth includes natural capital such as agricultural land, forest, oil, gas and minerals, to give a few examples. It also includes produced capital – such as infrastructure, machinery, factories, or buildings. Finally, a country's wealth includes human capital, such as a well-educated, healthy, and productive labor force. These three categories – produced, natural, and human capital, are considered the three main components of the changing wealth of nations, which together with net foreign assets, provide the assets base that countries rely on to produce GDP capita from year to year.

Estimates of the changing wealth of nations are available from the World Bank for 141 countries with a population of 6.8 billion people in 2014 (95 percent of the world's population)¹⁰¹. In those estimates, human capital wealth represents the expected future earnings of the labor force in net present value. As shown in Table 4.3, global wealth stood at US\$ 1,143 trillion in 2014. Human capital wealth was at US\$ 737 trillion, thus accounting for two-thirds of total wealth. In per capita terms, total wealth stood at US\$ 168,580 per person, with human capital wealth estimated at US\$108,654 per person. Inequality in human capital and total wealth between countries is high. In high income OECD countries, total wealth per capita is above US\$700,000, and human capital wealth is at close to US\$500,000 per person. This is more than 90 times the level in low income countries. Table 4.3 also provides estimates of human capital wealth by gender. Due to gender inequality in earnings, human capital wealth attributed to women was US\$ 283.6 trillion in 2014 versus US\$ 453.2 trillion for men¹⁰².

LOSS IN HUMAN CAPITAL WEALTH FROM VIOLENCE IN SCHOOLS

To measure potential losses in human capital wealth due to violence in schools, simple simulations are used. First, losses in learning while in school translate into losses in the education component of human capital wealth. Estimates of losses in learning due to VIAS are computed at the country level based on the estimate of the impact of VIAS on

Table 4.4: Potential Loss in Human Capital Wealth Due to Violence in School

	Total Cost (US\$ trillions)
Human capital wealth in 2014	736.9
Losses due to children not learning as much	
Loss in human capital wealth for countries included in PISA	4.7
Scaled-up losses for all countries with measures of human capital wealth	5.7
Losses due to children dropping out of school	
Potential gain in human capital wealth with universal secondary education	77.3
Share of drop-outs due to violence in school	5%
Potential gain from ending school drop-outs due to violence in school	3.9
Combined estimate of losses	
Combined losses from lack of learning and children dropping out of school	9.6
Potential gain from ending violence in school as share of human capital wealth	1.3%
Scaling-up factor from 2014 to 2019	
Cost of VIAS in 2019 (using ratio of global GDP between 2019 and 2014 at 1.1)	10.6

Source: Authors' estimations.

¹⁰¹ Lange et al. (2018).

¹⁰² See Wodon and de la Brière (2018) for more details.

learning as measured in the PISA assessment (see Chapter 2). In so doing, only the component of human capital wealth due to education is taken into account¹⁰³. The estimates obtained for all countries with a PIAS assessment are then scaled up to a global estimate using the ratio of global human capital wealth to human capital wealth in PISA countries. As shown in Table 5.4. This leads to a loss in human capital wealth globally of US\$ 5.7 trillion.

Next, an additional estimate of cost is computed for children dropping out of school specifically because of violence in school. The assumption used is that those children may have been able to pursue their education up to the completion of secondary school if they had not dropped out. In low income countries, this may be an optimistic assumption, but in upper-middle and high income countries most of the world's human capital wealth is concentrated, this may indeed be the case. Data are, however, not available at the country level on the share of drop-outs due to VIAS. The assumption used for all countries is that five percent of all children dropping out do so because of VIAS. In that case, five percent of the loss in human capital wealth due to children not completing their secondary education is assumed to be due to VIAS. As shown in Table 4.4, this leads to a loss in wealth of US\$3.9 trillion.

The combined loss from the potential impact of VIAS on educational achievement and attainment is valued at US\$9.6 trillion in 2014. Given population growth and gains in standards of living between 2014 and 2019, that value is scaled up by the ratio of global GDP in current US\$ in both years¹⁰⁴, leading to an estimated loss in human capital wealth in 2019 (pre-COVID) of just under US\$11 trillion.

These estimates are nothing more than broad orders of magnitude – they are not meant to be precise or definitive given the many assumptions involved. But they appear to be of a reasonable order of magnitude when compared to country level estimates in Table 4.1, which tend to be more carefully done than global estimates. Indeed, in Table 4.1, the average loss as a share of GDP is of the order of two percent. In Table 4.4, the loss as a share of human capital is at 1.3 percent. This is smaller but logical since only losses in earnings are accounted for, as opposed to other costs related to VIAS.

While the above analysis is illustrative of the fact that the economic costs of VIAS are very large, it should be clear that the estimates consider only costs related to losses in learning and educational attainment from VIAS and not other direct or indirect costs. Large gaps in our understanding of the potential costs of VIAS remain at the global level, for three main reasons:

1. Data limitations on the types of VIAS considered in this study: Because the analysis in this study relies in large part on school health surveys and student assessments, the focus is mostly on physical and emotional violence and less on sexual violence even if some analysis is conducted with VACS and DHS data on sexual violence.
2. Data limitations for costing the direct impacts of VIAS: While various costs of VIAS have been estimated in the literature for specific countries, obtaining global estimates for many types of costs requires data that are typically not available for many countries. For example, exposure to violence may affect brain development in ways that are not accounted for here. As another example, medical costs associated with VIAS are also not included here.
3. Data limitations on indirect impacts of VIAS and their costs: As just one example of indirect impact, the fact that VIAS has negative effects on educational attainment and learning may have intergenerational effects. Those costs are not included in the above analysis, but may nevertheless be substantial, as discussed briefly below for fertility and child health.

The analysis in Chapter 3 noted that women's educational attainment has a large impact on lifetime fertility and population growth. For example, a World Bank study on child marriage¹⁰⁵ suggests that the world population could have been 1.4 percent lower in 2030 if child marriage could have been ended in 2015 versus business-as-usual trends. Universal secondary education could lead to an even larger reduction in population growth (the effect could be about three times as large). As ending VIAS would increase educational attainment for girls and thereby reduce child marriage, it would reduce total fertility rates, thus reducing

¹⁰³ That component is itself estimated using the methodology for the measurement of human capital wealth, but setting the returns to experience to zero in the estimations.

¹⁰⁴ Per capita GDP and human capital wealth are very highly correlated, hence the extrapolation makes sense.

¹⁰⁵ Wodon et al. (2017).

population growth. With global wealth at US\$1,143 trillion in 2014, even a small annual reduction in population growth can lead to a non-negligible increase in wealth per capita which might be valued at the global level in the trillions of dollars over a decade or two.

A similar argument, albeit with lower valuations, could be made for the intergenerational impact of ending VIAS on the risk of under-five stunting and mortality for children. It has been suggested that undernutrition may lead to

economic losses equivalent to four to 11 percent of GDP in sub-Saharan Africa and Asia¹⁰⁶. Results from an experimental study in Guatemala suggest that children who avoid stunting have better cognitive abilities and higher levels of per capita consumption in adulthood¹⁰⁷. As early childbearing leads to higher risks of stunting for the children of young mothers, by reducing the risk of early childbearing for girls as a result of higher educational attainment, ending VIAS would lead to economic benefits as a result of a reduction in under-five stunting (and mortality) across generations.



¹⁰⁶ Horton and Steckel (2013).

¹⁰⁷ Hodinott et al. (2013).

PART II

PROGRAMS AND POLICIES

CHAPTER 5

FACTORS LEADING TO VIOLENCE

There is growing international evidence on what works to prevent VIAS. Several examples of successful interventions will be discussed in Chapters 6 and 7. But first, to provide a framework for such interventions and understand their logic, it is useful to consider the factors that lead to VIAS. Preventing violence requires an understanding of the factors that influence it. No single factor can perfectly predict incidents of violence. Rather, it is often a combination of risk factors at the individual, relationship, school, community, and societal levels that leads to violence. This short chapter relies on the ecological model as a conceptual device (as well as a governance tool when implementing programs and policies) to better understand why and where violence occurs, and suggest options for programs and policies to prevent violence through so-called protective factors. These protective factors in turn underline the types of interventions and approaches to prevent VIAS that are discussed in the next two chapters. In these chapters, we discuss interventions along the life cycle since the ecological model suggests indeed that various types of interventions are needed from early childhood to the completion of secondary school.

RISK FACTORS

The ecological model is a comprehensive framework that helps in understanding and disentangling the complex factors leading of violence and thereby identify some of its root causes. While not all factors can be addressed within the confines of schools, the model is useful to understand at a broad level some of the factors leading to violence, including VIAS. The model is inspired by the public health literature and adopts the same

approach as that used for many communicable and non-communicable diseases. Focusing on prevention, the model is dynamic and gender-sensitive, and it focuses on the root causes for violence and the accumulation of disadvantages or layers of exclusion in a child's life that makes him or her more prone to behave violently or experience violence¹⁰⁸.

By identifying key risk factors in a given context instead of considering violence as a given of human nature and treating violent individuals as abnormal or bad persons, the model helps us to break the cycle of violence whereby punitive responses may lead to more violence. Depending on each stakeholder's capacity to act and level of influence, the model helps to find entry points for interventions and mainstream violence prevention programs in public policy and education systems. By recognizing shared responsibility for violence prevention, it helps to focus on ways to change mindsets and behaviors. Risk factors for violence are typically recognized at the levels of individual, relationship, community, and society. For this study, because the focus is on VIAS, an additional level is included within the community corresponding to the school. Some of the risk factors for perpetrating violence or experiencing violence are determined by biology, others are environmental, and yet others are behavioral (Figure 5.1).

- **At the individual level**, childhood disruptive behavior, some of which can take place in schools (opposition, aggression and hyperactivity with corresponding poor self-esteem, poor emotions management, impulsiveness, lack of empathy), and cognitive deficits again in part due to the school environment (low IQ, inattentiveness, poor school performance) are associated with violence and delinquency in adulthood¹⁰⁹. For young children, poor nutrition (stunting), exposure to toxic substance (such as lead or mercury), prenatal and perinatal complications, and head injuries can all lead to brain defects, neurological dysfunctions, and learning disabilities, all of which may lead to violent conduct. For mothers, substance abuse (alcohol and drugs) during pregnancy increase risks for their children because they may also lead to lack of neural/brain development and predispose children to aggression and antisocial behaviors¹¹⁰. Depending on context¹¹¹, other risk factors include

¹⁰⁸ See WHO (2002) and Mercy et al. (1993).

¹⁰⁹ Tremblay and Craig (1995).

¹¹⁰ See for example Murata et al. (2004) and Hu et al. (2006).

¹¹¹ See Alda (2005) for a review.

¹¹² Boys are more likely to be victims and perpetrators of physical violence (Schäfer and Korn, 2002; Sebastião et al., 2002). But girls are more often victims of dating violence, abuse, sexual assault and harassment, and exploitation.

¹¹³ See for example UNESCO and UNGEI (2014).

¹¹⁴ Alcaraz (2002).

gender¹¹², sexual orientation¹¹³, low socio-economic status, and substance abuse. Age also matters¹¹⁴ as younger students are more likely to be victims of violent behavior because of their inferior position in the balance of powers between older and younger students. During the early school years, some children engage in violent behaviors such as kicking and hitting, spitting, and using pejorative nicknames for other children. Older students are at greatest risk of initiation to violent crime. Still other risk factors include too much unstructured free time and association with delinquent peers¹¹⁵.

- **At the family level**, a wide range of factors may lead to victimization or perpetration of violence. In particular, child maltreatment has been shown to have large effects on the propensity to be a perpetrator of violence later in life or be a victim of violence¹¹⁶. It is also associated with a higher risk of delinquency, and more so than unemployment, educational attainment, gun ownership, or exposure to lead through paint or gasoline¹¹⁷. In addition, too soft or too harsh discipline at home, corporal punishment, parental deviance, domestic violence, and the fact of witnessing violence at home, parental rejection, and poor supervision may all lead to higher risks of violence later in life. Issues such as food insecurity may also be risk factors for violence.
- **At the school level**, risk factors include (among others) lack of resources, lack of organizational capacity, and a school climate characterized by anti-social behaviors. Lack of student bonding with their schools, use of corporal punishment in the school, and more generally a lack of positive role models and caring adults also tend to result in higher risks of violence¹¹⁸. Drop-outs and student absenteeism and the presence of alcohol and drugs in the school are also negative factors. Poor school governance and classroom environment, including dilapidated infrastructure and lack of safety making it easier for perpetrators to enter schools are also detrimental¹¹⁹. But above

all, gang activity within schools and access to various types of weapons are especially detrimental¹²⁰.

- **At the community level**, the presence of gangs is a major risk factor, as is the prevalence of crime and violence in the community. Availability of firearms, high levels of unemployment or underemployment, high population density, poverty¹²¹, and norms conducive of violence and gender inequality also tend to be associated with higher risks of violence in schools.

At the societal level, wars or dictatorships, norms condoning the use of violence to solve conflict, sometimes in the aftermath of political conflict, norms condoning gender inequality such as patriarchal systems, and climates marked by impunity and corruption all tend to be associated with higher risks of violence¹²². Violence as portrayed in the media can also affect behaviors for both children and adults alike, as can weak police and legal systems and cultural norms condoning violent behaviors, for example by husbands towards their wives and other dependents.

Important risk factors start as early as during pregnancy and the early years of a child's life, with negative impacts not only the child's development, but also for future risks that the child may engage in violence, and lack the ability to be resilient to episodes of violence when victimized. This suggests that a life cycle approach to preventing violence may be warranted. This is the approach used in this study by identifying potential intervention in early childhood, as well as at the primary and secondary levels. Among different risk factors, both child aggression and child maltreatment have been shown to have large effects in terms of future delinquency¹²³ and aggression¹²⁴. Physical aggression may appear as early as the first year of life and typically increases between 24 and 48 months of age before decreasing as children learn to control their aggression¹²⁵. Longitudinal studies suggest that aggression at an early age is a strong predictor of aggression later in life as well as other antisocial behavior including criminality.

¹¹⁵ Blum and Rinehart (1997)

¹¹⁶ See for example Mercy (2008) and Currie and Tekin (2012).

¹¹⁷ Chioda (2017).

¹¹⁸ See for example Watson (1995) and Rossman and Morley (1996).

¹¹⁹ Fisher (2001).

¹²⁰ Abramovay (2002).

¹²¹ Gottfredson (2001).

¹²² WHO (2002).

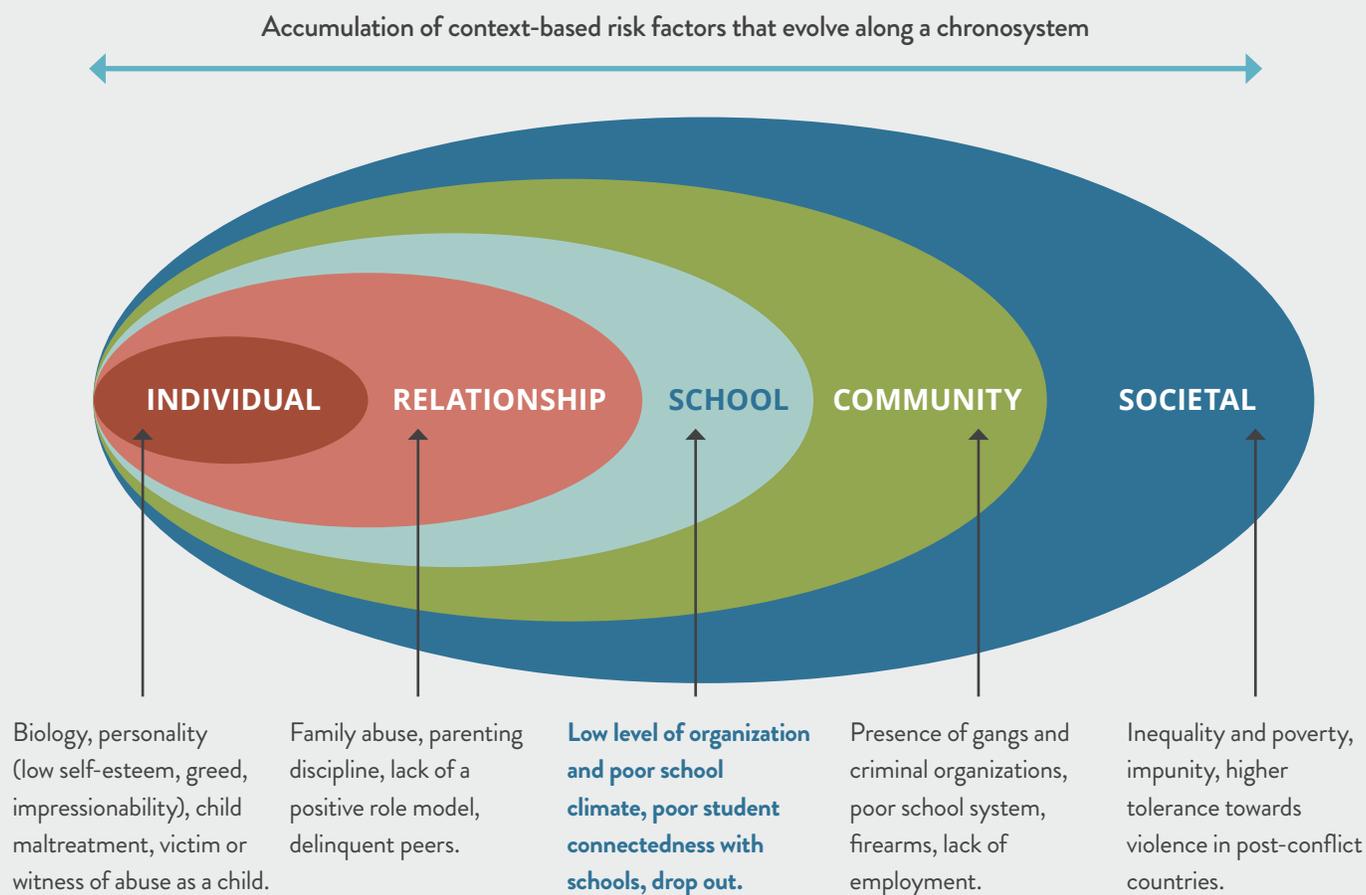
¹²³ Currie and Tekin (2012).

¹²⁴ Huesmann et al. (1984).

¹²⁵ Tremblay (2004).

¹²⁶ Chioda (2017).

Figure 5.1: The Ecological Model



Source: Adapted by the authors from WHO .

It may also lead to higher risks of unemployment and mental health issues¹²⁶. Maltreatment of children and the children’s aggression tend to reinforce each other.

The various risk factors are context-based and change over time in the life of children. For an infant or a young child, risk factors will mainly be at the individual and family levels, while as the child grows and goes to school, he or she will face new forms of victimizations and risk factors associated with schools, peers and communities will gain more salience. As such, adopting a life cycle approach follows a developmental theory to violence prevention. If violence is a learned behavior, it can be unlearned and not learned in the first place and risk factors contributing to it can be mitigated. Research shows that enhancing multiple protective factors early

in life breeds success to prevent violence later in life¹²⁷.

PROTECTIVE FACTORS

Each of the above risk factors has corresponding protective factors that can be enhanced to both prevent episodes of violence and increase the resilience of children, families and schools to violence. Protective factors are defined as characteristics of the child, family, and wider environment that reduce the negative effect of adversity on child outcome¹²⁸. At the individual and school levels, protective factors include good student achievement, the ability of students to bond with the schools, strong work motivation, the ability in developed countries to reach higher education, support and supervision by teachers, clear rules, and other positive features of the school

¹²⁷ Tremblay and Craig (1995).

¹²⁸ Masten and Reed (2002).

and class climate¹²⁹. Research suggests that enhancing protective factors might be more effective to reduce VIAS than simply focusing on mitigating risk factors¹³⁰. A more detailed discussion by level is provided below.

- **Individual and family-level protective factors** include caring relationships with parents and other adults as well as positive communication and discipline, all of which can help prevent violent behavior and strengthen children's resilience when violence occurs. Caring relationships also provide children with positive role models and help create a strong sense of connectedness to both family and community while promoting positive values¹³¹. Students who develop higher self-esteem and self-efficacy are less likely to engage in violent behavior and acquaint themselves with delinquent peers. These students can also adjust to change and recover from disruption and stressful situations. Finally, children with outgoing personalities – a trait which can to some extent be nurtured, may interact more easily with other children, which may again allow them to avoid engaging in violence as perpetrators or being victims of violence.
- **School-based protective factors** include some of the same caring relationships that work at the family level, but in this case with teachers and other school staff. In addition, students who are given opportunities to participate in the classroom and are recognized for their contributions, efforts, and progress in school, are more likely to develop strong bonds of attachment and commitment to school, family and community¹³². By contrast, alienation from such processes in a student's development can result in the loss of bonds with the school, a potential precursor to violent behavior. Indicators of school-level resources such as reasonable student/teacher ratios also can play a role. Teachers who have fewer students in the classroom can dedicate more time to each student and focus on those students that tend to interrupt the development of the lessons and the classroom. This helps for student engagement and performance, thus reducing the risk of disorderly behavior. Adequate physical infrastructure matters as well since schools that create a warm and welcoming environment not only help for the student experience,

but also for fostering a sense of physical and social order. Efforts to create a sense of school ownership among students as well as proper management of access to various school areas (including minimizing opportunities for out-of-sight activities or blind spots) can all foster a safe environment. Finally, maintaining high expectations also matters as both parents and schools that transmit high expectations to children and provide them with the necessary support to achieve these goals have higher rates of academic success, and lower risks of violence.

- **Community and societal protective factors** include participation in community networks. Students who belong to groups such as neighborhood associations or religious and school organizations that foster the development of positive informal and formal ties with other children, adults, and organizations are less likely to demonstrate aggression and/or violence¹³³.

The ecological framework is admittedly broad and at the operational level, more detailed framework could be used. At the World Bank, a forthcoming study is considering risk factors and interventions related to safety, teaching and learning, school-level relationships, and the institutional environment. But while different framework can be used – whether at a strategic or operational level, identifying risk and preventive factors has implications for programs and policies. In addition, the accumulation of risk factors often explains why an individual behaves more violently or is more prone to be victimized than others¹³⁴. Therefore, instead of looking for the single best intervention that would be most effective to prevent violence, it often makes sense to combine interventions that would both mitigate the most salient risk factors and enhance relevant protective factors in a given context and for a specific age group. In other words, it often makes sense to work on at least two or three spheres of influence at once. Considering the different spheres of influence of the ecological model, this means in particular engaging families and communities apart from schools. Families play a crucial role in a child's cognitive and socio-emotional development, while communities convey norms that can condone or dismiss the use violence. These issues will be discussed in more details in the next two chapters.

¹²⁹ Lösel and Farrington (2012).

¹³⁰ Resnick (2000).

¹²⁹ Blum et al. (2000).

¹³⁰ Hawkins et al. (1991).

¹³¹ <https://www.blueprintsprograms.org/publications/>

¹³² Olds et al. (1998); Farrington and Welsh (2007).

¹³³ Catalano et al. (1999) and Violence Prevention Institute (2001).

¹³⁴ World Health Organization (2002).

CHAPTER 6

PROMISING SCHOOL-BASED INTERVENTIONS

As mentioned in the previous chapter, the accumulation of risk factors often contributes to either perpetrating or being a victim of violence. Rather than relying on a single intervention to prevent violence, it is often better to combine interventions to tackle risk factors and enhance protective factors. This chapter focuses on school-based interventions within a life cycle approach. School-based violence prevention interventions can be effective, but their effectiveness vary by age group and the type of violence and bullying being observed. The chapter showcases examples of programs that have been rigorously evaluated and have proven effective in preventing different types of VIAS. Interventions are suggested according to the age groups for which they are likely to have the most impact, even though several interventions can be effective for different age groups. While many of the interventions have been evaluated in developed countries, an emerging body of evidence is now also available for developing countries. It is important to note that when planning interventions, considering “how to” is important beyond considering “what to” do. Although programs to end violence in school could be considered as part of a package of essential school health interventions, discussing components of such a package is beyond the scope of this study. Also, in addition to interventions, broader systems at the level of a country are needed especially to reduce gender-based violence and sexual exploitation, abuse, and harassment.

LIFECYCLE APPROACH

There is no unique or best way to categorize programs that seek to prevent VIAS. One review¹³⁵ classified interventions in nine categories: (i) enhancement of academic skills; (ii) after-school programs; (iii) mentoring/monitoring programs; (iv) social skills training for students; (v) skills training for teachers; (vi) school-wide interventions; (vii) violence reduction; (viii) counselling and mental health interventions; and (ix) other interventions

including community service. Another review¹³⁶ used different categories: (i) instructing students; (ii) behavior modification and teaching think strategies; (iii) mentoring, tutoring, and work-study experiences; (iv) counseling and social work; (v) recreational, community service and leisure activities. And school environment interventions, including (vi) managing schools and disciplines; (vii) establishing norms and behaviors; (viii) managing classes; and (ix) regrouping students. Still other reviews have proposed different typologies. Some typologies may work in some context, others in other contexts. In this chapter, we rely on a life cycle approach to present successful interventions.

Risk factors evolve over time, but research shows that enhancing multiple protective factors early in life helps to prevent violence later in life. However, it is never too late to prevent violence, and interventions later in life have a role to play. Table 6.1 provides the typology that we rely on to organize this chapter and the next, together with a few examples of effective programs by level of education.

EARLY CHILDHOOD: PREVENTING CHILD MALTREATMENT AND ENHANCING PARENTING SKILLS

As mentioned in chapter 5, risk factors start during pregnancy and the early years of a child’s life. Therefore, interventions to prevent VIAS should begin with prenatal care and selected other ECD programs¹³⁷. In Rio, child care programs have been shown to improve child assessments and lessen behavioral problems¹³⁸. The Colorado Blueprints for Healthy Youth Development¹³⁹ identifies three effective programs targeting 0-4 years old (infants and preschool children) and 16 promising programs. While not reviewing all programs here, a few can be highlighted.

A first well known intervention focusing on healthy pregnancy and parenthood readiness is the Nurse Family Partnership in the United States. This home visitation program accompanies women during their first pregnancy to prevent substance use (alcohol, tobacco, or drugs), promote a healthy diet, and equip them with positive parenting skills. It also focuses on raising knowledge of infants’ needs, including awareness of the dangers of exposure to toxic substance. The program helps in

¹³⁵ Valdebenito et al. (2019).

¹³⁶ Gottfredson et al. (2004).

¹³⁷ Denboba et al. (2014).

¹³⁸ Carneiro and Evans (2013).

¹³⁹ <https://www.blueprintsprograms.org/publications/>

Table 6.1: Typology and examples of effective programs by level of education

	Early Childhood and Preschool (0-5)	Primary (6-11)	Secondary (12-18)	Examples of Effective Programs
Integrated Approaches				
Home Visitations	✓✓	✓		Nurse Family Partnership
Whole School Approach		✓✓		Good School Toolkit
Anti-Bullying		✓	✓✓	Olweus anti-bullying programs, KiVa bullying prevention
Curriculum Enhancement				
Socio-Emotional Learning	✓	✓	✓	Promoting Alternative Thinking Strategies (PATHS)
Gender Equality		✓	✓	Fourth R (Preventing Dating Violence); Programa H
Conflict Resolution		✓		Aluas con Paz
Mindfulness		✓✓	✓	Quiet Time; Mindful Schools
Cognitive Behavioral Training			✓✓	BAM; EmpaTeach
Mentoring			✓	BAM
After-school Programs		✓	✓✓	Right to Play
Empowering Key Stakeholders				
Teachers' Skills Enhancement (positive discipline; classroom management)	✓✓	✓✓	✓✓	Irie Classroom Toolbox; Good Behavior Game; Good School Toolkit
Parenting	✓✓	✓✓	✓✓	Functional Family Therapy; Multisystemic Therapy
Community Norms	✓	✓	✓	Bell Bajao; Good School Toolkit; SASA!

Source: Authors.

preventing child maltreatment and increasing bonding with infants and positive discipline. It also helps to increase the importance given by mothers to early child care. Evaluations show significant positive outcomes in both the short and long term. In the short term, substantial reductions in child abuse and neglect were observed. In addition, in the long term, a 15-year follow-up assessment showed reduction in serious antisocial behaviors as measured through the number of arrests and convictions in comparison to control groups. Effects were even greater for children from disadvantaged families, suggesting the benefits from well targeted interventions¹⁴⁰.

The High/Scope Perry Preschool program is another well-known program that has been rigorously evaluated and has strong results. Disadvantaged children attended the program daily for 2.5 hours per day for two years, from 3 to 5 years of age and a total of 30 weeks a year. The curriculum focuses on stimulating cognitive development and enhancing self-control skills, was organized in small groups dynamic (5:1 teacher-children

ratio), and had weekly home visitation and parenting program to involve parents in the socio-emotional development of their children¹⁴¹. Children who participated in the program were followed up to age 27. Positive impacts included higher educational performance, including higher rates of high school completion, lower involvement in delinquency (fewer lifetime arrests), and improved economic status when adults¹⁴².

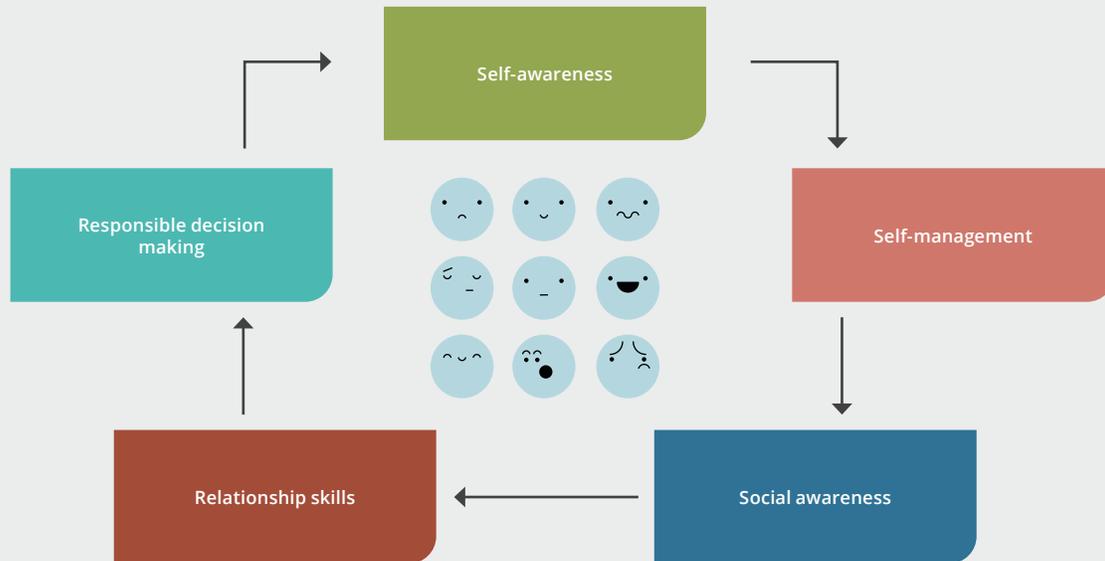
The Child-Parent Center Education Program in Chicago targeted inner city children aged 3 to 9. Participating children showed higher educational attainment, income, socioeconomic status, as well as lower rates of justice-system involvement and substance abuse later in life. The program emphasized basic skills in language arts and math through structured and diverse learning experiences that included whole-class instruction, small-group and individualized activities, and frequent field trips. All teachers were certified and had bachelor's degrees. Classes were small and staffed by aides. In addition to the head teacher in each site, the

¹⁴⁰ Olds et al. (1998); Farrington and Welsh (2007).

¹⁴¹ Tremblay and Craig (1995); Heckman et al. (2010).

¹⁴² Schweinhart et al. (1993).

Figure 6.1
Social-emotional learning



Source: Based on Weissberg et al. (2015).

parent resource teacher and outreach representative directed multi-faceted and intensive services in the parent resource room. The scope of services helped ensure high participation. Heavy outreach by staff also led to participation by families most in need¹⁴³.

Parent Corps is an evidence-based intervention that enhances pre-K programs in schools and early education centers, serving primarily children of color from low-income communities. It helps key adults in children’s lives — parents and teachers — to create safe, nurturing, and predictable environments at home and in the classroom and improve relationships and communication between parents and teachers. ParentCorps includes three main components: professional learning for leaders, teachers, mental health professionals, and parent support staff; parenting program for families of pre-k students, and social-emotional learning classroom curriculum. Among various outcomes, children showed less child internalizing and externalizing problems at two-year follow-up (age 8) than those in the control group¹⁴⁴.

Other programs shown to be effective for children’s healthy development include Project STAR and

Generation PMTO, a family training program focused on family management skills. To ensure quality implementation of evidence-informed early childhood interventions, performance checklists (lists of tasks or steps required to complete a practice competently) such as those developed by the Early Childhood Technical Assistance Center at the University of North Carolina - Chapel Hill can be a valuable tool. A meta-analysis of performance checklists for ECD interventions in the United States showed that the 26 checklists developed to implement best practice ECD programs were based on solid practice-outcome relationships. That is, they used strong evidence and findings from research syntheses and empirical studies to inform the selection or development of checklist indicators.¹⁴⁵ This suggests that performance checklists might be relevant and reliable tools, in particular in efforts to adapt or scale up programs.

Finally, healthy nutrition in early childhood is also critical. Poor nutrition and especially stunting can lead to long-term damage to the brain, which, in turn, can impact a child’s emotional and psychological responses to stress, learning disabilities and other medical complications. This may affect educational performance and achievement, as well

¹⁴³ Reynolds et al. (2011).

¹⁴⁴ Brotman et al. (2013); Dawson-McClure et al. (2015); Brotman et al., (2016).

¹⁴⁵ Dunst (2017).

as productivity in adulthood. Later in the child's life, once healthy nutritious habits are acquired, they can last beyond the school years and into adulthood. Insights are available on new interventions that focus on nutrition, mental health, and mindfulness, as a tool to curve violence¹⁴⁶, especially in primary schools to which we now turn.

POSITIVE EMOTIONS MANAGEMENT AND PEACEFUL CONFLICT RESOLUTION

Socio-emotional learning (SEL) programs are a common and effective approach to prevent VIAS. As show in Figure 6.1, SEL and socio-emotional skills can be broadly categorized in five groups of skills related to self-awareness (understanding one's own emotions, personal goals, and values, as well as one's strengths and limitations), self-management (regulating one's emotions and behaviors, for example by delaying gratification, managing stress, controlling impulses, and showing grit), social awareness (understanding, empathizing, and feeling compassion others, including those with different backgrounds or cultures), relationship skills (establishing and maintaining healthy and rewarding relationships), and responsible decision making (make constructive choices about personal behavior and social interactions across diverse settings)¹⁴⁷. SEL seeks to empower students to manage their emotions, achieve positive goals, empathize with others, sustain positive relationships, and make responsible decisions¹⁴⁸. A related approach to SEL emphasizes conflict resolution skills for students. Programs focusing on the skills can help students reduce instances of interpersonal conflicts, thereby preventing or reducing violence and bullying.

A review of four meta-analyses of school-based SEL programs suggests many positive outcomes including lower levels of conduct problems and emotional distress and higher academic performance for children participating from preschool through secondary education. Even though immediate results were stronger, positive outcomes persisted in the long term in a variety of contexts¹⁴⁹. While SEL programs have been successful in enhancing prosocial behaviors across age groups, some interventions had particularly strong results in

primary education. The Promoting Alternative Thinking Strategies (PATHS) in Jamaica focused on enhancing socio-emotional skills, in particular self-control and emotions regulations through a multi-component programs in primary schools (5-11 years old students), with strong results in enhancing protective factors such as better educational and employment outcomes¹⁵⁰.

Mindfulness is a relatively simple and low intensity technique that has shown positive results in terms of stress reduction, self-control but also reduction of suspension and grades improvement. In the United States, mindfulness has been introduced in elementary and middle schools through short sessions of breathing exercise and learning to be in the present moment. Evaluations and systematic reviews consistently found positive outcomes¹⁵¹. In San Francisco, the program Quiet Time that involves two 15 minutes sessions of breathing meditation per day (one in the morning and one in the afternoon) has led to a significant drop in anti-social behavior in school and outside school. This includes a reduction of 45 percent of suspensions and grades improvement¹⁵². A similar intervention implemented in Oakland called the Mindful Schools had similar positive results on stress reduction and self-control¹⁵³.

Some programs focus on peaceful conflict resolution. The Aulas en Paz program seeks to reduce and prevent aggression and promote peaceful coexistence in Colombian schools. The program consists of a curriculum to develop competencies in the classroom, extracurricular activities in groups of children identified initially as aggressive with children identified to having more prosocial skills, and workshops, visits, and regular phone calls to parents. More than 80,000 children have benefited from the program in elementary schools. An evaluation suggests reductions in levels of aggression and indiscipline and an increase in prosocial behavior among beneficiaries. The success of the intervention, particularly in violent contexts, appears to be predicated on the mix of universal activities for the general school population and targeted activities for those who need more targeted attention¹⁵⁴.

¹⁴⁶ Chioda (2017).

¹⁴⁷ Weissberg et al. (2015); Oberle et al. (2016).

¹⁴⁸ Weissberg and Cascarino (2013).

¹⁴⁹ Mahoney et al. (2018).

¹⁵⁰ Chioda (2017).

¹⁵¹ Napoli et al. (2005); Weare (2013); McKeering and Hwang (2019).

¹⁵² Hölzel et al. (2011).

¹⁵³ Chioda (2017).

¹⁵⁴ Jimenez et al. (2010).



Steps can be taken in primary school to prevent gender-based violence in adolescence. Gender-based violence results in part from cultural norms, traditional gender roles in the family and society, and power imbalances within the family, community, and society. School violence prevention programs must incorporate a gender lens. For example, if a school is designed properly, the risk of gender-based violence can be mitigated.

In addition, the school is a place where cultural norms can be challenged and reshaped to support gender equality and prevent gender-based violence. Even when teaching traditional academic subjects, teachers can strive to promote a culture of non-violence, as well as equality and respect for different genders and sexual orientations both within the school and the wider community.

SECONDARY EDUCATION: ANTI-BULLYING INTERVENTIONS AND GENDER EQUALITY PROGRAMS

Some interventions tend to be more effective with older children, especially to prevent bullying defined as repeated aggression (physical, verbal or psychological) among peers who have an imbalance of power (one child being more powerful than the other) over a prolonged period of time. In Europe, anti-bullying programs have been most successful with children aged 11 or older, even if more research is needed on differentiated impacts for

sub groups of children by gender, ethnicity, developmental needs, disability and other characteristics.¹⁵⁵ A meta-analysis on school-based violence prevention programs in the United States also suggests that programs focused on at-risk and older children had stronger effects in reducing violence¹⁵⁶. This is in line with research on conflict resolution education mentioned earlier that tends to be more effective for older than younger children¹⁵⁷. After-school programs also tend to be more effective for adolescents¹⁵⁸ probably due to positive peer associations. However, mixing students is not always effective probably because of the same yet reverse reason (working with peers can be counterproductive if this is associated with increased victimization and even a potential increase in bullying)¹⁵⁹. Remedial education and life skills and training programs for very high-risk adolescents also show positive outcomes¹⁶⁰.

The Campbell meta-analysis of 44 evaluations of anti-bullying programs reviewed studies with evidence of impact conducted from 1983 to 2009¹⁶¹. It shows that on average, the programs achieved to reduce bullying by 20-23 percent and victimization by 17-20 percent. Program components that proved more effective to reduce bullying included: parent training/meetings, improved playground supervision, disciplinary methods, classroom management, teacher training, classroom rules, whole school anti bullying policy, school conferences, information for parents, and cooperative group work. The most effective components were parent trainings/meetings and disciplinary methods, as well as

¹⁵⁵ Farrington and Ttofi (2009).

¹⁵⁶ Park-Higgerson et al. (2008).

¹⁵⁷ Garrard and Lipsey (2007).

¹⁵⁸ Gottfredson et al. (2004).

¹⁵⁹ Farrington and Ttofi (2009).

¹⁶⁰ Guerra et al. (2013).

¹⁶¹ Farrington and Ttofi (2009).

intensity for children and parent training/meetings. For victimization, videos and disciplinary methods were the most effective components, followed by parent training/meetings and cooperative group work. Among the different components, enhancing playground supervision, with more teacher presence, identifying hot spots and hot times for bullying, and re organizing the built environment and natural surveillance (supervision) accordingly were also promising and relatively low-cost interventions.

Comprehensive programs inspired by the Olweus model - which aims to address bullying and improve pupil relationships from elementary school to high schools, tend to work well. The program has been implemented in a dozen countries. Students respond to a short anonymous survey to assess the nature and prevalence of bullying in the school. A conference day is then convened for school staff to discuss the results of the survey with support from consultants. A Bullying Prevention Coordinating Committee with representation from all key stakeholders is created and an action plan is designed. Actions include adult supervision of school areas where bullying tends to occur. Regular classroom discussions and activities are held to reinforce rules and anti-bullying values and norms. The program also encourages parental involvement. Finally, some steps target students who bully and those who are bullied, as well as their parents. Evaluation suggests that the program may reduce bullying by half¹⁶².

For such programs to work, attention must be paid to the comprehensiveness of the program (number of components), as well as its duration (number of days) and intensity (number of hours) for teachers and children influence effectiveness towards bullying reduction. Intensive and long-lasting program are needed to change behaviors and norms in and around schools, which matters for prioritization when designing school programs. As discussed in the next chapter on stakeholder engagement, engaging with families and communities is also key for success. Parents sessions were particularly effective for both reducing bullying and preventing victimization¹⁶³.

For at-risk adolescents that display serious anti-social behaviors, are involved in delinquency and/or are at the verge of dropping out of secondary school, other

approaches such as cognitive behavioral training (CBT) have proven effective to lessen impulsiveness and enhance empathy. CBT challenges automatic responses and questions triggers that often leads to unwelcomed consequences. The Colorado Blueprints identify six model interventions that involve CBT: LifeSkills Training, Blues Program, Brief Alcohol Screening and Intervention for College Students, New Beginnings (for Children of Divorce), Project towards no Drug Abuse, and Promoting Alternative Thinking Strategies. In addition, the Colorado Blueprints identify 12 promising CBT programs. The focus of the discussion below is on impacts on delinquency and physical violence. CBT may also mitigate the effects of child sexual abuse, including depression, post-traumatic stress and anxiety, but a meta-analysis suggest that those impacts are generally modest.

The LifeSkills Training (LST) program has been rigorously evaluated multiple times with consistent, strong evidence of its effectiveness to prevent violence and substance abuse for high school students. LST uses multiple methods (instruction, demonstration, feedback, reinforcement and practice) to teach high school students personal self-management skills, social skills, and information and resistance skills related to drug use. A total of 30 sessions are taught over three years with a decreasing number of sessions over time (15, 10, and 5 sessions per year). Additional violence prevention lessons also are available each year. Results from a large-scale randomized study in New York City showed a reduction of 32 percent in delinquency and 26 percent in the likelihood of fighting after the first year of the program¹⁶⁴.

Becoming a Man (BAM) targets at-risk adolescent boys from very disadvantaged neighborhoods in Chicago. It focuses on emotions management, interpersonal problem solving, goal setting, empathy, and personal integrity using CBT and role modeling in and after school. Youth meet on a voluntary basis every week with a mentor for a check-in during which they can share personal concerns. The group listens in and situations are reviewed in groups to analyze responses and alternatives. Those sessions are followed up with sport sessions with trained coaches. Sports activities help reinforce SEL and positive conflict resolutions with specialized guidance. BAM lasts 27

¹⁶² Hazelden Foundation (2007).

¹⁶³ Farrington and Ttofi (2009).

¹⁶⁴ Botvin et al. (2006).

¹⁶⁵ Heller et al. (2013).

hours with weekly group sessions over the school year. Evaluations show positive short-term effects not only in reducing antisocial behaviors, but also in improving academic achievements. Specifically, BAM helped reduce violent crime arrest by 44 percent and arrests related to vandalism and weapons crimes by 36 percent. In addition, participants were more likely to graduate from high school compared to non-participants¹⁶⁵.

Mentoring, teachers' skills enhancement, counselling and mental health services, and academic support have also been found effective to reduce exclusion, and thereby avoid its multiple negative consequences on both adolescents' learning achievements and violence perpetration and victimization. Disciplinary exclusion has been linked to antisocial behaviors and delinquency¹⁶⁶ as well as poor learning outcomes, including dropout¹⁶⁷ with long-term negative outcomes in terms of employment and training opportunities¹⁶⁸. Meta-analysis found that skills training for teachers and mentoring programs were the most effective (in the short term) to reduce exclusion¹⁶⁹. Other effective interventions included enhancement of academic skills and counselling/mental health services. These findings are in line with other research that emphasized the importance of teacher-student relationships to enhance

students' motivation, engagement to school, and more generally prosocial and less aggressive behaviors in life. Positive mentoring also had multiple positive effects in promoting prosocial behaviors as they provide positive role models and positive connectedness with a caring adult.

Specific interventions focus on preventing dating violence. Adolescents are particularly vulnerable to reproducing patterns of violence witnessed at home or in the community in terms of gender-based violence. Effective programs aim to empower adolescents to build and maintain healthy relationships. They usually include knowledge on how to detect abuse and develop skills to ensure respect in romantic relationships. Interventions such as Fourth R in Canada aim to empower adolescents to build and maintain healthy relationships. They usually include knowledge on how to detect abuse and develop skills to ensure respect in romantic relationships. An evaluation suggests that students, particularly males, who participated in the program at aged 14-15 were significantly less likely to perpetrate acts of violence towards their partners two years following program participation at age 16-17, compared to peers who did not participate¹⁷⁰. Other programs focusing on sexual education have also shown positive results in reducing coercive sex between students and fostering higher resilience to pressure for having sex.



¹⁶⁶ Hemphill and Hargreaves (2010).

¹⁶⁷ Arcia (2006); Michael (2011); Noltemeyer and Ward (2015).

¹⁶⁸ Massey (2011).

¹⁶⁹ Valdebenito et al. (2019).

¹⁷⁰ Wolfe et al. (2009).

¹⁷¹ Rijdsdijk et al. (2011); UN-Women and UNESCO (2016).

This included the World Starts with Me in Uganda that targeted both male and female students aged 12-19¹⁷¹.

Finally, after-school programs usually combine recreational activities (sports or arts) and academic support to promote adolescents' positive use of free time, positive peer association, and mentoring while strengthening socio-emotional learning, gender equality, and life skills. When reviewing after-school programs and their respective effectiveness, attention should be paid to the diversity of programs in terms of form, structure and specific goals, and the need to focus on quality.¹⁷² Some after school programs provide intensive, small-group instruction or individual tutoring programs, while others only provide unstructured homework time, which is unlikely to lead to significant results. Provided they follow evidence-based practices, after-school programs can lead to significant reductions in conduct problems and drug use, as well as gains in achievement (as measured through test scores), grades, and school attendance. Researchers summarize these practices as SAFE, which stand for (S)tep-by-step training approach, (A)ctive forms of learning by having youth practice new skills, (F)ocused time and attention on skill development, (E)xplicit in defining the skills to be promoted. After-school programs tend to be more effective for adolescents, probably because they enable positive peer association¹⁷³.

REFERRAL PATHWAYS: WHAT TO DO WHEN CASES OF VIOLENCE ARE IDENTIFIED

The interventions mentioned so far focus on prevention. When violence or bullying occurs in schools, the students who have been victimized need support. Child-friendly, safe, and reliable reporting mechanisms and referral pathways must be in place to allow an ethical and timely response when a child experiences violence. This is crucial to prevent further trauma and revictimization, provide children with the right support and services, and prevent perpetrators from continuing doing harm. Different modalities exist to enable safe reporting in school, including child-friendly helplines, chat rooms and online reporting, anonymous boxes,

and trained counselors or focal points in schools.

Raising awareness on the need to report is not an easy task, however. Data from surveys measuring violence against children suggest lack of reporting of episodes of violence, both in school and elsewhere. In Kenya and Uganda for example, between 40 and 60 percent of boys and girls who were victims of VIAS told someone about the incident, but less than 10 percent of victims receive services¹⁷⁴. Part of the issue is a lack of awareness about the services that are needed or available. Another issue is the high level of normalization of violence against children. There is, therefore, also a need to teach children, including young boys and girls, to identify abuse. But in addition, lack of reporting is also due to lack of trust that appropriate actions will be taken and perceptions that no retaliation against perpetrators will happen. In some settings, there may also be incentives for principals and teachers not to report violence in their school, for example to preserve the school's reputation.

When reporting incidents of violence, adequate referral pathways are needed. Referral pathways are protocols for a series of actions or steps to take after identifying a student who has been the victim of violence and bullying. Their primary objective is to ensure that survivors/victims of violence and bullying receive prompt and coordinated responses from service providers while also ensuring the safety and privacy of the victim. The services provided must be comprehensive and may include health services, psychosocial support, protective care (police services), and legal services if needed, as well as linkages to other community service providers. During this process, school actors must ensure that existing policies and agreed procedures are followed, including for prosecution of perpetrators.

Ensuring the confidentiality of the survivor/victim is critical as is maintaining high ethical standards during the process of referral. To that end, school may want to identify and train focal points for both genders within the schools so that student victims/survivors can reach out directly to them in order to maximize the effectiveness of the referral

¹⁷² Durlak et al. (2010); Hirsch et al. (2010).

¹⁷³ Hill et al. (2011); Chioda (2017).

¹⁷⁴ Catholic Relief Services (2019).

¹⁷⁵ UN-Women and UNESCO (2016).

pathway system. Many countries have adopted referral pathways, including Guatemala and Peru, as well as Kenya and Uganda. In Kenya, a free National Child helpline was set up with trained volunteer counselors and a clear referral pathway with a list of service providers specialized in child services. More research is needed on how effective referral pathways are in practice, but guidance on how to choose reporting mechanisms is available¹⁷⁵.

BEYOND SPECIFIC PROGRAMS: THE IMPORTANCE OF POLICIES AND LAWS

The discussion so far is based on experimental or quasi-experimental evaluations and focuses on the empirical evidence on programs that appear to work to reduce VIAS. Beyond specific programs, it is also important to mention the importance of broader policies, including laws. When policies are implemented well, and national laws have adequate enforcement mechanisms, they can have a major impact towards reducing violence at scale, which may in turn reduce the need for specific programmatic interventions. The referral pathways mentioned above is one example of broader policies, as are codes of conduct in schools adopted by school systems. Laws to prevent the use of corporal punishment policies in school are another example of national policies that can make a difference at scale. Yet while many countries have adopted laws to prevent corporal punishment, including in school, the practice often remains used by teachers due to weak enforcement. This does not mean that laws should not be adopted, but rather that actual practices should be monitored and sanctioned when needed.

To illustrate how laws related to violence in schools remain inadequate in many countries, consider an analysis recently conducted using data from the Women, Business, and the Law program at the World Bank¹⁷⁶. The analysis documents global trends in legal protection for women and girls against domestic violence and sexual harassment. In particular, Women, Business and the Law collects data on legislation on sexual harassment, defined as any unwelcome sexual advance, request for sexual favor, verbal or physical conduct or gesture of a sexual nature, or any other behavior of a sexual nature that might reasonably be expected or be perceived to cause offence or humiliation.

Sexual harassment may occur when it interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. It may also occur in public and private spaces and in schools.

The share of countries without laws on sexual harassment is decreasing. Between 2013 and 2017, it dropped by three percentage points from 16.3 percent to 13.5 percent thanks to legal reforms in Cameroon, Chad, Egypt, and Guinea. Similarly, when considering other areas, some gains were observed as well. At the same time, one in five countries does not have appropriate laws against sexual harassment in employment. The proportion is much higher at six in ten countries for sexual harassment in education and at four in five countries for sexual harassment in public spaces. Criminal penalties for sexual harassment, such as fines or imprisonment are in place in only two thirds of countries and less than half for sexual harassment in employment. There is heterogeneity between regions in the share of countries with adequate laws, with weaker laws for some (but not all) categories in the Middle East and North Africa as well as sub-Saharan Africa. In nearly nine out of ten countries, laws covering sexual harassment do not specifically apply to the different domains of employment, education and public places combined, suggesting that most countries continue to have at least some gaps in their laws.

Despite more countries adopting laws against sexual harassment, including in education, the number of women not protected under the law is decreasing only slowly, in part due to population growth. In 2017, 287 million adult women were not legally protected from sexual harassment, versus 320 million in 2013. The share of women not protected was reduced from 12.5 percent to 10.6 percent. But when considering specific domains, the statistics are worse. Estimates of the number of women lacking legal protection against sexual harassment in employment, education, and public places are at 359 million globally, 1.5 billion, and 2.2 billion, respectively. These estimates are all very high.

¹⁷⁶ Tavares and Wodon (2018).

CHAPTER 7

ENGAGING ALL STAKEHOLDERS

Multiple stakeholders must be engaged to ensure that schools are safe. This includes stakeholders within the school – not only students, but also teachers and principal – as well as stakeholders in the community, including parents and caregivers. There are examples of successful programs adopting so-called whole school approaches to violence prevention, as noted by WHO. One of the objectives of engaging with the school community at large is to change mindsets on VIAS (and more generally violence against children), while also challenging where needed patterns of gender inequality that sustain gender-based violence. This chapter considers ways to strengthen teacher training and engage parents/caregivers so that they fully participate in programs. Examples of programs that have managed to change community norms towards the use of violence are also provided. While these programs are discussed in this chapter because of their emphasis on engaging stakeholders, they could also have

been discussed as part of the previous chapter since they are also good examples of specific interventions. The message we wish to give by providing guidance in two separate chapters – one on interventions, and the other on the need to engage with stakeholders, is that while specific interventions are identified as promising, all interventions should be implemented with a view, when feasible, to engaging relevant stakeholders. Interventions without broad engagement with stakeholders are not likely to succeed, and similarly engagement without specific (evidence-based) interventions is also unlikely to succeed. Both specific interventions and engagement with stakeholders are needed. As mentioned in the previous chapter the “how to” matters apart from the “what to” focus on to end violence in schools. Beyond specific stakeholders, governance and laws, reporting mechanisms, and systems, as well as codes of conduct, all matter. This is in particular the case for laws pertaining to gender-based violence and sexual exploitation, abuse, and harassment.

WHOLE SCHOOL APPROACH

A whole school approach is a comprehensive approach that seeks to change norms at the school level to promote respect, inclusion, good behavior, and learning



¹⁷⁶ Tavares and Wodon (2018).

¹⁷⁷ CEAPA (2012).

¹⁷⁸ Bradshaw et al. (2012); Cornell et al. (2012); Lewis et al. (2013); Ward and Gersten (2013); Sprague et al. (2016); Un-Women and UNESCO (2016); WHO (2019).

¹⁷⁹ Frankenberg et al. (2010); Payet and Franchi (2008).

¹⁸⁰ Durrant (1999).

and safety. This is done by engaging with the entire school community, including pupils/students, principals, teachers, school administrative staff, counsellors, parents, and community members and leaders. Potential components of a whole school approaches have been defined by various organizations in slightly different ways, but with similar intent. Beyond the prevention of VIAS, the Center for Disease Control considers 10 components in its Whole School, Whole Community, Whole Child (WSCC) approach: Physical education and physical activity; Nutrition environment and services; Health education; Social and emotional school climate; Physical environment.; Health services; Counseling, psychological and social services; Employee wellness; Community involvement; and Family engagement. The United Nations Girls Initiative suggests that core elements of a whole school approach towards ending gender-based violence should include: Effective school leadership and community engagement; Establishing and implementing a code of conduct; Capacity building of teachers and educational staff; Empowering children on child rights, participation, and gender equality; Improving reporting, monitoring, and accountability; Addressing incidents; Strengthening physical learning environments; and Engaging parents. These two lists are not exhaustive: other ways of conceptualizing the whole school approach have been proposed¹⁷⁷.

A whole school approach uses multiple strategies to develop a common vision and shared values and rules for the school, and works through the curriculum, teacher training, parental engagement, and student learning towards a safe and inclusive school climate and respectful school values¹⁷⁸. A key characteristic of a whole school approach is thus collaboration among main school stakeholders. Teachers and parents play an especially crucial role. One of the objectives is to change mindsets on corporal punishment and violence against children as a way to educate children¹⁷⁹ as well as gender inequality that sustains root causes for violence. Breaking these habits and cognitive frames is not easy, but it can be done possible. In Sweden for instance, a general ban on all forms of corporal punishment against children with corresponding public education

campaigns helped decreased public support to corporal punishment from 54 percent to 11 percent in 25 years¹⁸⁰.

In primary schools, a well-known program using a whole-school approach is the Good School Toolkit (GST) in Uganda, a country with substantial structural issues related to poverty, large class sizes, poor physical infrastructure, and a lack of resources for teaching. The program was developed by the NGO Raising Voices in consultation with teachers and children in 600 schools. It works through six sequential steps to provide behavioral change techniques to teachers, school staff and students. It focuses on goal setting, positive discipline, empathy, and reflection and practice of new behavioral skills. Teachers and school staff are trained and supported throughout implementation. An evaluation suggests that after 18 months of implementation, GST reduced the risk of physical violence by teachers and school staff against students by 42 percent; halved the number of teachers who reported using physical violence against students; and improved students' connectedness and sense of safety and belonging with their school. GST also increased teachers' satisfaction in their role at school and increasing students' wellbeing and sense of safety at school¹⁸¹.

ENHANCING TEACHERS' SKILLS ON POSITIVE DISCIPLINE AND CLASSROOM MANAGEMENT

Supporting teachers to enhance their skills in positive discipline and classroom management is one of the most effective approaches to preventing bullying and violence in and around school. Among the different types of school violence prevention interventions reviewed in a meta-analysis¹⁸², those focusing on providing teachers with skills to improve their relationship with students and manage students' behaviors had the strongest and most reliable results in terms of lessening disruptive and aggressive behaviors in the classroom and enhancing prosocial behaviors later in life. By contrast, punitive interactions tend to feed a vicious circle of violence, delinquency, and further exclusion. These results are in line with other systematic reviews and meta-analyses¹⁸³. The types of training reviewed in the meta-analyses included training focusing on facilitating mutual respect

¹⁷⁷ CEAPA (2012).

¹⁷⁸ Bradshaw et al. (2012); Cornell et al. (2012); Lewis et al. (2013); Ward and Gersten (2013); Sprague et al. (2016); Un-Women and UNESCO (2016); WHO (2019).

¹⁷⁹ Frankenberg et al. (2010); Payet and Franchi (2008).

¹⁸⁰ Durrant (1999).

¹⁸¹ Devries et al. (2015); Naker (2018); WHO (2019).

¹⁸² Valdebenito et al. (2019).

¹⁸³ Oliver et al. (2011); Obsuth et al (2016); Allen et al. (2007); Cornelius-White (2007); Roorda et al. (2011).

between teachers and students¹⁸⁴, training focusing on class management and establishing clear classroom rules¹⁸⁵, and training providing teachers with strategies for working in alliance with parents to promote students' engagement in school activities¹⁸⁶. SEL training should be included in teacher training given its positive effects on students' prosocial behaviors and learning achievements¹⁸⁷.

Several programs have been effective at empowering teachers at different levels of education to use positive discipline and improve trust and mutual respect in their interaction with children. The Global Initiative to End All Corporal Punishment of Children and the WHO handbook on school violence prevention provide useful resources on positive discipline for teachers and schools¹⁸⁸. When teachers and the entire school community understand that respect and trust are key pillars for child's healthy development and that corporal punishment is not only counterproductive but negatively impacts a child's learning ability, the whole school culture and climate may be transformed.

At the preschool level, the IRIE Classroom Toolbox has empowered early childhood teachers to create emotionally supportive classroom environments, teach preschool children socio-emotional skills, use classroom

management techniques, and develop behavior planning. Evaluation showed reduction in teachers' use of violence against teachers and overall improvement in children's prosocial behavior¹⁸⁹. Another promising program for primary teachers is EmpaTeach developed by the International Rescue Committee. This is a low-intensity 10-week intervention during which teachers are taught strategies to maintain discipline in their classrooms in nonviolent ways. EmpaTeach focuses on teachers themselves using cognitive-behavioral therapy and behavioral science techniques to help them identify their triggers, change destructive thought patterns, and plan for positive reactions. Pilot findings showed a reduction in physical and emotional VIAS (as self-reported by students), higher student connectedness, less depression, and more engagement in school. The use of the empathy building module also succeeded in changing teachers' attitudes towards corporal punishment.¹⁹⁰

ENGAGING WITH PARENTS AND CAREGIVERS

Since many risk factors associated with aggression and violence are the individual and family levels, families need to be part of school programs as they keep playing an important role in children and teenagers' life and development. In fact, engaging with parents of adolescents



¹⁸⁴ Okonofua (2016).

¹⁸⁵ Hawkins et al. (1988).

¹⁸⁶ Jalongo et al. (2001).

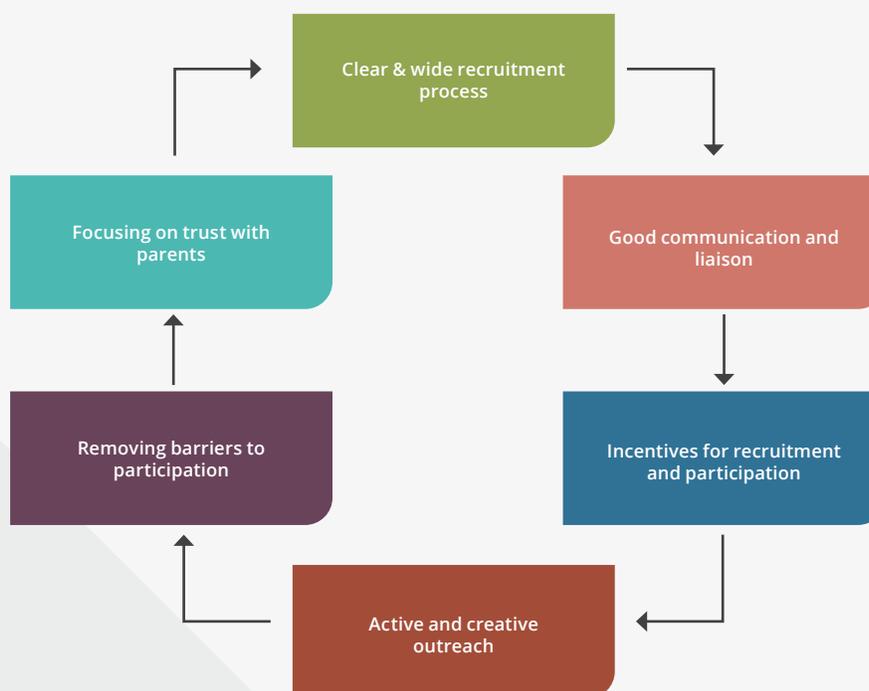
¹⁸⁷ Mahoney et al. (2018); Schonert-Reich et al. (2017).

¹⁸⁸ WHO (2019).

¹⁸⁹ Baker-Henningham et al. (2017).

¹⁹⁰ International Rescue Committee (2017).

Figure 7.1: Engaging with Parents and Caregivers



Source: Adapted from Axford et al. (2012).

important to identify potential experiences of violence or bullying that may be ignored if there is no communication or trust in the family. However, not all programs are equal, with different types, structures and intensity affecting outcomes.¹⁹⁵ While some parenting interventions have step-by-step protocols and resources and tools with sessions in the classrooms and sharing of practical how-to information with parents and caregivers, others may simply consist of newsletters or unstructured engagement with uncertain results. Several resources on promising examples of parenting programs are available including the WHO School Violence Handbook¹⁹⁶, the UN Women's guidance on school-related gender-based violence¹⁹⁷, the INSPIRE Handbook and associated resources¹⁹⁸, and resources from various clearinghouse websites.

Effectively engaging with parents not only requires choosing among alternative programs, but also recruiting parents and keeping them engaged. The most challenging part of engaging with parents is probably not to choose

among the many parenting methodologies, even though quality matters, but to keep them engaged long enough to produce sustained behavioral change. A few lessons emerge from research and practice (Figure 7.1)¹⁹⁹. A thorough recruitment process, good communication and liaison with stakeholders, incentives for recruitment and retention (such as in-kind incentives for parents²⁰⁰ but also rewards for recruiters²⁰¹), active and creative outreach work providing flexibility for practitioners to innovate, investment in building relationships with parents, making programs easily accessible, and having realistic expectations can all help making parenting programs work. Other studies confirm these best practices and show that building relationships with parents focusing on trust, possibly through home visits by practitioners, is effective²⁰². Finally, removing barriers to participation such as inadequate timing, lack of interest, or stigmatization is as important as providing catch-up sessions to prevent children from dropping out.

¹⁹⁵ Durlak et al. (2010); Hirsch et al. (2010); Yohalem and Wilson-Ahlstrom (2010).

¹⁹⁶ WHO (2019).

¹⁹⁷ UNESCO and UN Women (2016).

¹⁹⁸ WHO et al. (2016, 2018).

¹⁹⁹ Axford et al. (2012).

²⁰⁰ McDonald et al. (2012).

²⁰¹ Baker et al. (2011).

²⁰² Caspe and Lopez (2006); Davidson and Campbell (2007).

WORKING WITH COMMUNITIES ON SOCIAL NORMS AND SAFE PASSAGE TO SCHOOLS

As schools do not operate in isolation, it is important to engage with communities to shift norms conducive of violence, be they the endorsement of corporal punishment as a way to discipline a child, gender inequality, or the use of violence to solve conflicts or exert power over others. Apart from the Good School Toolkit mentioned earlier, SASA! is a good example that shows how norms can be challenged even in a relatively short period of time. SASA! means “Now!” in Kiswahili. The program was developed by Raising Voices to prevent violence against women and has been implemented in Uganda by the Center for Domestic Violence Prevention. It employs multiple strategies to build a critical mass of engaged community members, leaders, and institutions, including local activism, media and advocacy, communication materials, and training. The Activist Kit that is central to SASA! community engagement and mobilization involves four phases: Start, Awareness, Support, and Action. The content evolves with each phase, with power as a central theme. Results from a randomized controlled trial suggest positive effects after three years of programming. In comparison to control communities, SASA! communities reported a reduction in levels of violence against women of 52 percent; an increase in the share of women and men who believe it is acceptable for women to refuse sex of 28 percent; and an increase of 50 percent in the share of men and women who believe that physical violence against a partner is unacceptable. Essentially, SASA! works with key stakeholders at the community level to deconstruct power in intimate partnerships²⁰³.

Another interesting program is the Bell Bajao! (Ring the Bell) Campaign²⁰⁴. The campaign was launched in 2008 to call on men and boys across India to take a stand against domestic violence by performing a simple bystander intervention – ringing the doorbell when they witnessed domestic violence taking place. The campaign’s integrated cultural, organizational and media strategy sought to make the issue part of mainstream conversations, increase knowledge about and change community attitudes towards domestic violence and towards HIV-positive women; and alter individual

behavior. By the end of the three-year campaign, through television, radio and print, online multimedia campaign, educational materials and travelling video vans, over 130 million people had been reached. In addition, more than 75,000 rights advocates were trained to become agents of change. The efforts resulted in a 49 percent increase in the number of people aware of the Protection of Women from Domestic Violence Act in India, and a 15 percent increase in access to services for survivors.

Engaging with community is also important as violence commonly happens on the way to or from school. Ensuring a safe passage to schools usually implies identifying the main routes to schools, hot spots where children (both girls and boys of different ages) feel most vulnerable, and placing adult monitors on those strategic routes during commute times. Safe passages can also be enhanced, for example by cleaning up routes, improving the physical environment in and outside the school, making sure schools can close, working with street vendors or other shop keepers in the surrounding of the schools to enhance positive natural surveillance, ensuring public lighting works, and improving road safety²⁰⁵. Evaluation of the Chicago Safe Passages suggests positive results in terms of crime reduction on the main routes to school as compared to neighboring roads where the program was not implemented²⁰⁶. Other examples of safe passage mechanisms include Walking Buses in Iraq with two trained adults escorting girls to school²⁰⁷ and the Jamaican Integrated Community Development Project that combined road wardens, community mobilization, training in violence prevention and road safety and proper signals on the main roads to school²⁰⁸.

STRATEGIC APPROACHES FOR VIOLENCE PREVENTION

Efforts to prevent VIAS can take place in a single school, or a group of schools, but ideally they should be broader and led by Ministries of Education at the national level, often in collaboration with other Ministries or agencies. To that end, systemic approaches are needed since of the aims is to transform societies so that VIAS is no longer accepted, justified and practiced. To sustainably shift norms, parent associations and teacher unions, as

²⁰³ Michau et al. (2008); Abramsky et al. (2014).

²⁰⁴ Breakthrough (2013); Michau et al. (2016).

²⁰⁵ This is often referred to Crime Prevention Through Environmental Design.

²⁰⁶ Curran (2019).

²⁰⁷ UNICEF (2010).

²⁰⁸ World Bank (2019).

well as religious groups and even political parties, need to participate and be heard. Several useful guides and handbooks exist in that respect, for example on engaging with religious leaders to end VIAS²⁰⁹. More generally, four steps in the strategic process can be suggested, whether this is done nationally or at a sub-national level.

A first step is to set clear standards for all, which can be done by passing laws that prohibit all forms of violence, and in particular violence against children in school. As mentioned earlier, on corporal punishment, according to the Global Initiative to End All Corporal Punishment of Children, 132 countries have prohibited the practice in schools and 56 have done so in all settings including at home. However, thirty years after the adoption of the UN Convention on the Rights of the Child, corporal punishment in schools is still lawful in 67 countries. Legislation is necessary but not sufficient however, especially in contexts where corporal punishment is seen as a necessity to properly discipline a child and enforcement systems are unlikely to exist or work even when corporal punishment is outlawed. Legislative efforts must be accompanied by continued and multi-pronged awareness raising efforts. Such efforts need to happen at all levels of society and be relayed by influential

groups. All stakeholders, including teacher unions, political parties, religious groups, parent associations, and children need to better understand children's rights and the detrimental effects of VIAS as well as the link between violence against women and violence against children. Educational campaigns also need to focus on the benefits of non-violent alternatives as children who are not afraid in schools have a higher connectedness, mental health and educational achievements.

Some countries have adopted codes of conduct focusing on school communities. Like legislation, codes of conduct are useful tools to set standards and signal priorities and values. They set guidelines and ethical standards for school staff (teachers and principals) as well as students and parents and clearly outline unacceptable behaviors such as the use of any type of violence, sexual harassment, and abuse of power in school. To be effective though, they need to be widely known and enforceable.

A second step is the development of solid diagnostics to guide the elaboration of action plans at different levels. To prevent violence and be able to target efforts and monitor progress, it is crucial to understand the prevalence of different types of violence in a given



²⁰⁹ Dodd (2011).

context. It is also important to analyze risk and protective factors associated with different forms of violence. Through the Safe to Learn campaign, a diagnostic tool has been developed that covers key elements that need to be in place to ensure a safe learning environment for children. The tool helps identify assets and gaps in terms of legislation, policy, budgeting, capacity, from the national level all the way down to the school level. Each layer of influence is looked at, with suggestions based on the evidence and best practices available.

A third step is to develop a common vision and action plan not only to clearly set priorities and responsibilities, but also define standards and accountability mechanisms across agencies and sectors. Action plans can be set at all levels of influence to be closer to the context. These plans ideally are co-created, that is, they adopt a participatory process and involve all relevant stakeholders, including teachers, unions, parents, and community leaders. Action plans need to have relevant indicators on behavioral change (not just outputs) to assess progress and improve programs as needed.

A fourth step is to promote a whole school approach to enhance students' connectedness with schools, and

ensure a positive learning environment. As mentioned earlier, a whole school approach seeks to change norms at the school level by engaging all stakeholders, from students to teachers and principals, and parents as well as community members and leaders. In implementing such approaches, due attention should be paid to what the empirical evidence suggests in terms of what works and what may not, taking into account the form of violence being considered, age group affected, gender dynamics, and context. This is the case for the prevention of violence as well as for steps that are taken when violence occurs.

Finally, it must be recognized that investment projects in the social sectors including education can exacerbate the risk of Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH). Donors and government agencies must therefore be careful go assess such risks in their projects. At the World Bank, within the context of the Environmental and Social Framework, principles and approaches to identify and mitigate the risk of SEA/SH in projects are outlined in a good practice note²¹⁰ currently under development, the principles of which may also be of interest to government Ministries.



²¹⁰ World Bank (2021).

CHAPTER 8

ILLUSTRATIVE COST-BENEFIT ANALYSES

The analysis so far has provided evidence of the large negative potential impacts of violence in school, some of the costs generated by violence in schools especially through lower educational attainment and its implication for human capital wealth, and some of the interventions that have been proven to reduce violence in schools. The question considered in this chapter is whether these interventions generate more economic benefits than the cost of implementing them. To show that this is often the case, this chapter provides illustrative results from cost-benefit analyses building on the existing literature. The chapter thereby helps to demonstrate that implementing interventions to reduce violence in and around schools is not only the right thing to do, but also a smart economic investment. It should however be noted that many of the analyses have been conducted in developed countries and especially in the United States – so they may not be representative of the costs/benefits in developing countries.

PRINCIPLES AND LIMITATIONS OF COST-BENEFIT ANALYSIS

Cost-benefit analysis aims to compare the benefits of interventions to their cost. When the ratio of benefits to cost is high, which typically also implies high internal rates of return, an intervention may be especially attractive for policy makers in contexts where budget resources are limited. Extensive data and assumptions are typically needed to conduct a cost-benefit analysis. This implies that results can be sensitive to assumptions as well as other parameters related to data quality. Cost-benefit analyses must rely on the results of impacts evaluations since the benefits relate to the impacts of the interventions. Such impact evaluations may be limited in number and may themselves be more or less robust.

Detailed estimates of costs and benefits are also required. While some interventions may provide a comprehensive accounting of all costs involved, this is often not the case. In the literature, information on implementation costs is often lacking even when information on the impacts of an intervention may be available. In addition,

as illustrated in this chapter with a case study for Uganda, implementation costs may be very different for an initial pilot intervention in comparison to the costs when interventions are scaled up. Accounting for benefits is also fraught with potential issues. One issue relates to the economic valuation of benefits. But another issue relates to the type of benefits included. Some interventions may have been documented to have impacts in a wide range of areas, while for other interventions, only a few impacts may be available. This may distort comparisons of benefits due to differences in the comprehensiveness of the benefits being included in the analysis.

When comparing the streams of costs (during implementation) with benefits (during and after implementation, including in adulthood for children who benefited from interventions), the issue of which discount rate (given the need to compute the present value of benefits that may arise many years in the future) to use may be debated. A higher discount rate, which may be warranted in developing country contexts, may reverse the conclusion that would result from a lower discount rate, in that the sign of the net present value estimated may change. This is also an additional reason why it is often difficult – and not advisable, to narrowly compare cost-benefit analyses conducted separately for different interventions since these analyses may have used different hypotheses, including for discount rates. Readers should not infer that one intervention is necessarily better than another simply because the benefit to cost ratio of the first intervention appears to be higher than that of the second.

Still another issue is that of the external validity of an impact evaluation, and therefore of any cost-benefit analysis based on the results of the evaluation. An intervention may have been successful in a particular context of setting. This does not imply that it will remain successful when scaled up in a country, or when implemented in a different context, or even a different country. It is often the case that intervention that were successful when piloted turned out not to have the same impacts when scaled up, or when implemented in a different context. Many of the available cost-benefit analyses for programs aiming to reduce VIAS have been conducted in Western countries, and especially in the United States. It could be that the ratios of benefits to costs that could be observed for similar interventions in developing countries could be different.

For all of those reasons, the analysis provided in this chapter is tentative and illustrative, as opposed to definitive. This being acknowledged, the chapter provides illustrative results from cost-benefit analyses following the life cycle approach used in Chapter 6. Interventions related to early childhood development (ECD) are first discussed, before considering programs implemented at the primary and secondary levels specifically to reduce the risk of violence. Thereafter, two additional sections consider the potential for reducing costs when scaling up a program (using cost data from Uganda's Good School Toolkit as an example), and the specific case of interventions to reducing gender-based violence.

EARLY CHILDHOOD INTERVENTIONS

Risk factors for future violence start during pregnancy and the early years of a child's life. Experiencing violence at home is associated with a higher risk of perpetration or victimization later in life. In addition, socio-economic disadvantage in the early years, including poor nutrition, may affect a child's brain, leading to negative effects in adulthood. The first 1,000 days are especially crucial. Hundreds of new neural connections are formed in the brain every second in a child's early years. Sensory pathways for basic vision and hearing develop first, followed by early language skills and higher cognitive functions²¹¹. In particular, toxic stress must be avoided. As mentioned earlier, it refers to a child's response when experiencing repeated adversity, including physical and emotional abuse as well as economic hardship and exposure to violence in the household (such as intimate partner violence). As is the case for stunting, toxic stress may affect brain development with implications in multiple areas throughout adult life²¹². These effects are in turn associated with higher risks of violence, whether as a victim or perpetrator.

Ensuring that conditions for ECD are optimal is important to reduce the risk of violence later in life. The good news is that interventions at an early age can make a major difference. Research suggests the need for holistic approaches to ECD since a child's physical and intellectual well-being as well as their socio-emotional and cognitive development are interrelated²¹³. This implies that multiple conditions must be in place, which may require multiple

interventions. In a framework on priorities for ECD, 25 interventions were considered as essential²¹⁴. They were organized according to the time period in the life of children to which they apply and grouped into five packages: pregnancy, birth, child health, preschool, and family support packages. Most of these interventions have high rates of returns, with economic benefits often estimated at multiples of the cost of the interventions. Because of these high benefit-cost ratios, investments in ECD are often considered as having higher economic rates of returns than investments made later in life, for example, in school or in an adult's working life²¹⁵.

The evidence on the economic benefits from ECD interventions is broad. Multiple interventions in a variety of contexts and countries have been shown to generate positive impacts. When the cost of implementing interventions is very low, as is the case for some health and nutrition interventions, the benefit-cost ratios can be especially high. But even for types of interventions that are more costly to implement, such as ensuring that young children have the opportunity to benefit from preschools in order to be ready to start primary school, much of the literature suggests high benefit to cost ratios. At the same time, there is a danger in assuming that ECD interventions are always going to generate important benefits. This is not necessarily the case.

Consider the case of preschools and center-based ECD programs, for which many of the more in-depth cost-benefit analyses have been conducted in the United States and other Western countries. A summary of those analyses is provided in a study²¹⁶ that considers six programs: (1) High-Scope Perry Preschool; (2) Carolina Abecedarian; (3) Chicago Child-Parent Center Program; (4) Even Start Family Literacy Program; (5) Early Head Start; and (6) Sure Start. Many of the programs also included home visiting, parenting advice, health and nutrition services, and referrals for social services. The available cost-benefit analyses considered various types of benefits, including those related to education, health, employment and earnings, and crime and social welfare. For five of the six programs, education outcomes are reported, while for three of them, impacts on crime have been estimated.

²¹¹ Nelson (2000).

²¹² See for example Aizer (2011).

²¹³ Shonkoff, et al. (2012).

²¹⁴ Denboba et al. (2014).

²¹⁵ Carneiro and Heckman (2003); Heckman and Masterov (2007).

²¹⁶ Dalziel et al. (2015).

Table 8.1 provides a summary of the results. The first three programs were implemented early on. They had high positive returns on investment and benefit to cost ratios ranging from 2.04 to 16.14, often with multiple evaluations for the same program available which suggests robustness in the assessment of their value. The three programs implemented later with wider rollouts had negative net present values – their benefits were smaller than the cost of implementation, although in some cases this is based on a single study. Why such large differences are observed between the earlier and the more recent interventions is not fully clear as multiple factors may be at play in leading to diverging results for the cost-benefit analyses. It could be that scaling up the programs led to issues such as weaker participation from communities that are often key for program success. It could also be that as access to preschools became more widespread, at least some children in control groups benefited from similar investments, thus leading to smaller differences in outcomes between treatment and control groups.

But perhaps the most important factor leading to potential differences in net present values relates to the number of benefits included in the cost-benefit analyses. For earlier programs, participants are now older, so that a larger number of benefits into adulthood can be

measured. By contrast, some of the more recent programs simply cannot include such benefits in the analysis. For example, the Sure Start cost-benefit analysis is based on outcomes observed at five years of age, thus not including some of the large benefits from a reduction in crime reduction, better educational attainment, and higher earnings that occur later than five years after the program. Across the cost-benefit analyses, the highest net present values were observed for programs for which outcomes could be measured into adulthood such as the Perry Preschool. By that reasoning, it could still be argued that the programs for which outcomes could be measured show larger benefits than costs.

The key message from Table 8.1 is not that center-based and preschool interventions are not appropriate interventions. It is rather that (1) quality implementation is essential when scaling up programs (external validity issue); and (2) results from a cost-benefit analysis depend on the types of benefits included, which also depends on how long after an intervention an evaluation is implemented. One cannot simply assume that programs will generate benefits that exceed costs. More generally, it is always prudent to acknowledge that Interventions that were successful in particular contexts may not work in other contexts.



Table 8.1: Cost-Benefit Analysis for Selected Preschool and ECD Programs

Program	Description	Cost in 2011 USD (1)	Benefit in 2011 USD (2)	Ratio (2)/(1)	Net Present Value (2)-(1)
Early and small scale programs with relatively comprehensive accounting of long-term benefits					
High-Scope Perry Preschool (United States)	Program of 21.6 months for children 2-4 year old with emphasis on cognitive development	\$19,867 to \$29,836	\$45,789 to \$320,702	2.04 to 16.14	\$23,468 to \$300,835
Carolina Abecedarian (United States)	Program of up to 60 months for children 6-12 weeks old with emphasis on language and social development	\$45,189	\$170,788	3.78	\$125,599
Chicago Child-Parent Center Program (United States)	Program of 19.2 months for children 3-4 year old with emphasis on cognitive and social development as well as family support	\$8,855 to \$9,304	\$42,684 to \$100,520	4.82 to 10.83	\$33,829 to \$91,242
More recent and larger programs typically without full accounting of long-term benefits					
Even Start Family Literacy Program (United States)	Program of 10 months for children 0-8 year old with emphasis on improving academic achievement, especially reading	\$5,981	\$0	NA	-\$5,981
Early Head Start (United States)	Program of 22 months for children below one year old with emphasis on enhancing child development and strengthening families	\$25,796	\$5,865	0.23	-\$19,930
Sure Start (England)	Program of variable length for children up to 4 year old with emphasis on 3arly education, child care, and health services	\$7,873	\$452 to \$902	0.057 to 0.115	-\$7,421 to -\$6,971

Source: Adapted from Dalziel et al. (2015).

SOCIO-EMOTIONAL SKILLS AND RELATED PROGRAMS

In primary schools, one of the main recommendations to reduce the prevalence of violence in Chapter 6 was to implement programs helping children improve their social and emotional skills. This includes competencies such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making²¹⁷. Acquisition of socio-emotional skills often leads to gains in well-being, positive attitudes, and pro-social behavior, reductions in risky behaviors such as violence and substance abuse²¹⁸, and improvements in academic performance²¹⁹, all of which can lead to success

in the labor market²²⁰. In secondary schools, for at risk adolescents, approaches such as cognitive behavioral training have proven effective (Life Skills Training was mentioned as an example). Specific interventions can also be implemented to prevent dating violence, as is the case with the Fourth R program that aims to empower adolescents to build and maintain healthy relationships²²¹. Finally, after-school programs that combine recreational activities and academic support may also reduce violence.

How do the gains suggested by impact evaluations translate in terms of the comparison of the resulting economic benefits with the cost of implementing the programs? Analysis is not available for most programs,

²¹⁷ Weissberg et al. (2015).

²¹⁸ Durlak et al. (2010); Collaborative for Academic, Social, and Emotional Learning (2013).

²¹⁹ Durlak et al. (2011); Sklad et al. (2012).

²²⁰ Heckman and Kautz (2012).

²²¹ Wolfe et al. (2009).

but a recent synthesis of cost-benefit analyses of SEL interventions covers six different programs²²². The synthesis acknowledges previous cost-benefit analysis for several of these programs²²³, but notes that because previous analyses often relied on different methodologies, conducting a new cost-benefit analysis with the same methodology across programs could provide additional insights.

The first program is the 4Rs Program (Reading, Writing, Respect, and Resolution) implemented in grades K-5 to promote pro-social behavior and help students develop cooperative problem-solving skills. An evaluation in New York City suggested a reduction a range of aggressive behaviors as well as gains in achievement for mathematics and reading²²⁴. The second program, Positive Action, aims to promote positive thinking, actions, and self-concept for all students in grades 3 to 8. The third program, Life Skills Training, is a classroom intervention for grades 6 to 12 to reduce substance abuse and violence²²⁵. The fourth program, Second Step, is based on a social skills curriculum to improve problem-solving and emotional management for children from pre-kindergarten to grade 10. The next program, Responsive Classroom, targets students in grades 3 to five to improve socio-emotional skills by improving teacher efficacy. The last program, Social and Emotional Training, was implemented in Sweden) for grades 1 to 9. While some programs target students at risk, many cover all children.

Table 8.2 provides results for baseline estimates. Each of the six interventions generates higher benefits than costs according to the review, with benefit-cost ratio ranging from 3.46 to 13.91 across interventions in the baseline scenarios. For each intervention, the authors also consider alternative scenarios that affect the benefits to costs ratios, but in no case are the ratios negative. This suggests that investments in SEL and related programs could generate substantial economic returns.

ANTI-BULLYING PROGRAMS

In secondary schools, another recommendation in Chapter 6 was to focus on programs that reduce the prevalence of bullying. Bullying is defined as repeated

aggression (physical, verbal or psychological) over a prolonged period of time among peers who have an imbalance of power. Reviews also suggest that intensive and long-lasting program are needed to change behaviors, with parental sessions contributing to the success of the programs²²⁶. A meta-analysis of multiple evaluations of anti-bullying programs suggests that the programs reduced the prevalence of bullying by about a fifth on average²²⁷, with comprehensive programs inspired by the Olweus model working particularly well.

As for SEL-related programs, cost-benefit analysis has been conducted for several programs aiming to reduce bullying. Two frequently cited program are the Olweus Bullying Prevention Program (OBPP), which was mentioned in Chapter 6, as well as the KiVa anti-bullying program, which includes actions targeting all students (curriculum including student lessons and online games to prevent bullying), and indicated actions to be used when a bullying case has emerged – those actions specifically target children and adolescents who have been involved in bullying as perpetrators or victims. A cost-benefit analysis of the potential benefits from OBPP in Pennsylvania suggests that the cost of implementing the program would be at US\$25.8 million or an average of US\$7.70 per student per year. However, when start-up costs are not considered, the on-going cost of implementation falls to US\$2.07 per student per year. The analysis suggests that net savings from the program through lower healthcare costs thanks to the expected reduction in bullying are valued at \$12.30 per student year²²⁸. This in turn suggests a benefit-cost ratio of 6.94 not including start-up costs (these costs would be spread over time over multiple years, so the program appears cost effective; in addition, other potential benefits not included in the analysis could raise the benefit to cost ratio). Results are summarized in Table 8.3.

Table 8.3 also provides data on three cost-benefit analyses for the KiVa anti-bullying program for the Netherlands²²⁹, Wales²³⁰, and Sweden. The analyses for the Netherlands and Wales suggest positive net present values, and as a result benefit-cost ratios well above 1. The lower ratio for the program in Wales is likely due

²²² Belfield et al. (2015).

²²³ See especially Lee et al. (2012); Jones et al. (2008); and Miller and Hendrie (2008).

²²⁴ Jones et al. (2011).

²²⁵ Hawkins et al. (1998).

²²⁶ Farrington and Ttofi (2009).

²²⁷ Farrington and Ttofi (2009).

²²⁸ Highmark Foundation (2018).

²²⁹ Huitsing et al. (2019).

²³⁰ McDavid (2017).

in part to a smaller set of benefits taken into account. In Sweden, the analysis is presented in a different way, showing the estimated cost per QALY (Quality-adjusted life year) at €13,823. This is well below the accepted norm for cost effective interventions in the country, at about €50,000, suggesting that in comparison to the norm, the intervention is cost effective (the value of the benefit to cost ratio here is computed differently, and defined simply as the norm divided by the cost, or €50,000/€13,823, so this estimate is not comparable to the other benefit-cost ratios provided, but again, as mentioned in the introduction, one should be careful not to compare benefit-cost ratios across programs unless exactly the same methodology has been used for the various cost-benefit analyses, which is often not the case).

One last but important consideration when implementing programs and assessing costs is whether scaling up helps in reducing unit costs per students. To illustrate how this can be the case, consider the Good School Toolkit (GST) in Uganda mentioned in Chapter 7. A cost-effectiveness analysis of the program²³¹ suggests that the cost of the program when implemented at small scale was up to US\$15 per child. Scaling up nationally could dramatically reduce this unit cost to just a few dollars per student thanks to economies of scale in design and training costs.

REDUCING UNIT COSTS BY SCALING UP

These illustrative cost-benefit analyses suggest that interventions in early childhood, primary schools, and secondary schools that have the potential to reduce violence in schools are often economically beneficial, in that they generate relatively high benefit to cost ratios. While these ratios are sensitive to the assumptions used in the analyses, the results suggest that reducing VIAS is a smart economic investment. Unfortunately, most of the available data are from developed countries, so that how this information translates to developing countries, and especially low income countries, is not fully clear, even if one can presume that similar results would apply.

Table 8.3: Cost-Benefit Analysis for the Olweus and KiVa Anti-bullying Programs

Program	Description	Cost in 2015-16 (1)	Benefit in 2015-16 (2)	Ratio (2)/(1)	Net Present Value (2)-(1)
Olweus (United States)	Olweus curriculum in K-12 schools	\$2.07 (on-going only)	\$14.37 (*)	6.94 (on-going only)	\$12.30
KiVa (Netherlands)	KiVa curriculum in primary schools	€203 (4 years)	€819 to €1,363	4.04 to 6.72	€203 to €818
KiVa (Wales)	KiVa curriculum in primary schools	£656 (4 years)	£1,037	1.58	£381
KiVa (Sweden)	KiVa curriculum in primary schools	€829 (4 years)	€13,823 per QALY vs. €50,000 norm	3.62 (**)	NA

Source: Compiled by the authors.

Note: (*) The value of \$14.37 is not provided by the authors but reconstructed by adding the on-going cost of the program and the net benefit. (**) The ratio of benefits to costs is computed differently, as the accepted norm in the country for acceptable cost per QALY divided by the estimated cost per QALY for the program.

²³¹ Greco (2018).

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