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**Document Title:** The Biological and Psychosocial Effects of Peer Victimization: Lessons for Bullying Prevention, Summary Overview

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Summary of the Research Project

The Board on Children, Youth, and Families, National Academies of Sciences, Engineering, and Medicine, in conjunction with the Committee on Law and Justice, convened a committee of experts to conduct a consensus study that produced a comprehensive report on the state of the science on: 1) the biological and psychosocial consequences of peer victimization and 2) the risk and protective factors that either increase or decrease peer victimization behavior and consequences. Given the limited research on bullying specifically and potential to learn from other areas of victimization, the study committee reviewed the relevant research and practice-based literatures on peer victimization—including physical, verbal, relational, and cyber, from early childhood through adolescence. The committee also drew upon research in other areas of victimization to inform the core questions of this study. A particular focus on children who are most at risk of peer victimization—i.e., those with high risk factors in combination with few protective factors—such as children with disabilities, poly-victims, LGBT youth, and children living in poverty was included in the study. The work of the committee built on the workshop, Building Capacity to Reduce Bullying, as appropriate. The following questions were of particular interest:

- What is known about the physiological and psychosocial consequences of peer victimization for both the perpetrator and target? Specifically, what is the state of
research on the neurobiological and mental and behavioral health effects of peer victimization?

- How are individual and other characteristics (e.g., cognitive and social skills and affective dispositions) related to the dynamic between perpetrator and target, and the subsequent initial signs and long-term outcomes for both?

- What factors contribute to resilient outcomes of youth exposed to, and engaged in peer victimization (e.g., safe and supportive school climate; relationships with adults and peers)?

Based on currently available evidence, the committee addressed the questions above and provided findings, conclusions, and recommendations that can inform future policy, (e.g., state legislatures, school districts), practice (e.g., school safety, disciplinary actions, health care provision, law enforcement), and future research on promising approaches to reduce peer victimization, particularly for vulnerable populations and those most at-risk of experiencing peer victimization. The committee also identified key research gaps, that if filled would significantly inform the knowledge base about how to reduce peer victimization. The report was completed and sponsoring organizations were briefed on May 9, 2016. The report was released to the public on May 10, 2016 and is available as a prepublication report at www.nas.edu/scienceonbullying

**Purpose**

Recognizing that bullying behavior is a major public health problem that demands the concerted and coordinated time and attention of parents, educators and school administrators, health care providers, policy makers, families, and others concerned with the care of children, a group of federal agencies and private foundations asked the National Academies of Sciences, Engineering, and Medicine to undertake a study of what is known and what needs to be known to...
further the field of preventing bullying behavior. The Committee on the Biological and Psychosocial Effects of Peer Victimization: Lessons for Bullying Prevention was created to carry out this task under the National Academies’ Board on Children, Youth, and Families and the Committee on Law and Justice. The study received financial support from the Semi J. and Ruth W. Begun Foundation, Centers for Disease Control and Prevention (CDC), the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the Health Resources and Services Administration, the Highmark Foundation, the National Institute of Justice, the Robert Wood Johnson Foundation, and the Substance Abuse and Mental Health Services Administration.

**Project Subjects (Not Applicable)**

The committee did not collect data from project subjects under this grant. Funding for the focus groups described below was supported by a grant from the Highmark Foundation.

**Project Design and Methods**

This report builds on the April 2014 workshop, summarized in *Building Capacity to Reduce Bullying: Workshop Summary* (Institute of Medicine and National Research Council, 2014c). The committee’s work was accomplished over an 18-month period that began in October 2014, after the workshop was held and the formal summary of it had been released. The study committee members represented expertise in communication technology, criminology, developmental and clinical psychology, education, mental health, neurobiological development, pediatrics, public health, school administration, school district policy, and state law and policy. The committee conducted an extensive review of the literature pertaining to peer victimization and bullying. In some instances, the committee drew upon the broader literature on aggression.
and violence. The review began with an English-language literature search of online databases, including ERIC, Google Scholar, Lexis Law Reviews Database, Medline, PubMed, Scopus, PsycInfo, and Web of Science, and was expanded as literature and resources from other countries were identified by committee members and project staff as relevant.

The committee met three times in person and conducted other meetings by teleconferences and electronic communication. In addition, the committee held two public information-gathering sessions, one with the study sponsors and the second with experts on the neurobiology of bullying; bullying as a group phenomenon and the role of bystanders; the role of media in bullying prevention; and the intersection of social science, the law, and bullying and peer victimization. To explore different facets of bullying and give perspectives from the field, a subgroup of the committee and study staff also conducted a site visit to a northeastern city, where they convened four stakeholder groups comprised, respectively, of local practitioners, school personnel, private foundation representatives, and young adults. The site visit provided the committee with an opportunity for place-based learning about bullying prevention programs and best practices. Each focus group was transcribed and summarized thematically in accordance with this report’s chapter considerations.

Data Analysis (Not Applicable)

As described above, the committee and project staff did not conduct original data analysis for this report.

Findings

The final report, Preventing Bullying Through Science, Policy, and Practice, presents the committee’s findings, conclusions and recommendations. A printed copy of the prepublication

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The committee developed seven recommendations to make progress in monitoring, preventing, and intervening in bullying. These are listed below:

**Recommendation 7.1:** The U.S Departments of Education, Health and Human Services, Justice, Agriculture, and Defense and the Federal Trade Commission, which are engaged in the Federal Partners in Bullying Prevention interagency group, should foster use of a consistent definition of bullying. These agencies should:

- Promote wide adoption and use of this definition by all federal surveillance efforts on bullying prevalence, by investigators studying bullying, and by schools and other organizations.
- Encourage research that compares different methods and operational definitions of bullying to determine the impact of different definitions on prevalence and incidence rates, change over time, or effects of interventions on outcome behaviors.
- Mandate that prevalence of bullying behaviors be included with other outcome measures in any evaluations of youth violence prevention programs, in order to also determine their effects on bullying.

**Recommendation 7.2:** The U.S. Departments of Health and Human Services, Education, and Justice and other agencies engaged in the Federal Partners in Bullying Prevention interagency group should gather longitudinal surveillance data on the prevalence of all forms of bullying, including physical, verbal, relational, property, cyber, and bias-based bullying, and the prevalence of individuals involved in bullying, including perpetrators, targets, and bystanders, in order to have more uniform and accurate prevalence estimates.
• This should include at a minimum all school-aged children (ages 5-18) who might be involved in or affected by bullying behavior.

• This should include nationally representative data on groups that are identified in this report as being at increased risk for bullying behavior (for example, but not limited to, LGBT students, students with disabilities, and youth living in poverty).

• These agencies should develop mechanisms for sharing bullying data at geographic units of analysis other than the national level (e.g., state and school district level) that will allow communities, organizations, and researchers to evaluate the implementation and impact of policies and programs.

Recommendation 7.3: The U.S. Department of Education’s Office of Civil Rights, the state attorneys general, and local education agencies together should (1) partner with researchers to collect data on an ongoing basis on the efficacy and implementation of anti-bullying laws and policies; (2) convene an annual meeting in which collaborations between social scientists, legislative members, and practitioners responsible for creating, implementing, enforcing, and evaluating anti-bullying laws and policies can be more effectively facilitated and in which research on anti-bullying laws and policies can be reviewed; and (3) report research findings on an annual basis to both Congress and the state legislatures so that anti-bullying laws and policies can be strengthened and informed by evidence-based research.

The committee believes that state-level laws and policies aimed at reducing bullying should be evidence-based. Establishing best practices for this legislation will involve an iterative process of conducting additional research on and evaluation of anti-bullying laws outlined in this report, followed by fine-tuning of the laws, followed by more research and evaluation. Such an
endeavor will also involve more interdisciplinary and cross-sectoral collaborations between social scientists, practitioners, and legislative members than currently exist.

These researchers should come from varied disciplines including public health, justice, law, behavioral health, implementation science, and economics. These public-private collaborations should also focus on the dissemination and sharing of what is learned through their data collection efforts.

**Recommendation 7.4:** The U.S. Departments of Education, Health and Human Services, and Justice, working with other relevant stakeholders, should sponsor the development, implementation, and evaluation of evidence-based programs to address bullying behavior.

These programs should:

- Include the needs of students already involved in bullying, either as individuals who bully, who are targets of bullying, or who are bystanders;
- Be specifically evaluated to determine their impact on vulnerable populations, including but not limited to children living in poverty and children with disabilities;
- Include parents, other adult caregivers, and families; and
- Test and incorporate the use of emerging and innovative technologies to reach youth.

Ineffective or harmful programs and practices such as zero tolerance practices should be immediately discontinued.

These should include programs consistent with a public health approach to bullying, which includes universal, targeted, and indicated prevention programming. It is also important to address the need for more intensive interventions and mental health services for youth already involved in bullying and experiencing behavioral and mental health consequences.

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There should be a particular emphasis on research that identifies effective programs for youth who appear to be at elevated risk for involvement in bullying (e.g., youth with disabilities, LGBT youth, and culturally diverse youth). There is also a need for studies that can enhance understanding of the extent to which extant, empirically supported selective and indicated preventive interventions for violence, aggression, and delinquency could be leveraged to meet the needs of students involved in bullying behavior or experiencing the mental and behavioral health consequences of bullying.

Research should also assess the impact of preventive interventions and how these impacts interplay with the factors known to influence bullying behavior (e.g., age, gender, school climate, peers). In addition, it should assess the extent to which novel technologies (e.g., social media), innovative approaches, and youth voice could be leveraged to improve the impact of prevention programs.

**Recommendation 7.5:** The U.S. Departments of Education, Health and Human Services, and Justice, working with other relevant stakeholders, should promote the evaluation of the role of stigma and bias in bullying behavior and sponsor the development, implementation, and evaluation of evidence-based programs to address stigma- and bias-based bullying behavior, including the stereotypes and prejudice that may underlie such behavior.

As noted in Chapter 3 of this report, bias-based bullying due to one or more stigmatized social identities (e.g., race/ethnicity, LGBT, weight, disability status) is understudied in the bullying literature, and the committee believes that greater cross-fertilization between the stigma and bullying literatures is needed to advance the effectiveness of anti-bullying efforts.
**Recommendation 7.6:** The U.S. Department of Health and Human Services and the U.S. Department of Education, working with other partners, should support the development, implementation, and evaluation of evidence-informed bullying prevention training for individuals, both professionals and volunteers, who work directly with children and adolescents on a regular basis. Training should occur on an ongoing basis (1) to ensure retention of information and to sustain competence, (2) to account for turnover of personnel in these positions, and (3) to promote high quality implementation of evidence-informed bullying prevention practices. The competence of these individuals to address bullying behavior appropriately should be periodically monitored.

These individuals can include educators; education support professionals such as school bus drivers, school resource officers, and others who interact on a regular basis with children and youth; health care professionals, including pediatricians, school nurses, and counselors; and other adults such as youth development staff at after-school programs, sports coaches, religious staff, Scout leaders, camp counselors, and the like. As described in earlier chapters, especially Chapter 5, these paid and unpaid professionals are often at the “front lines” and may witness bullying or want to intervene but feel poorly equipped to do so. In some cases, their interventions may actually be harmful to both the child who is bullied and the child who perpetrates the bullying behavior. A more consistent, intentional, and evidence-based system of training is needed to support these professionals.

**Recommendation 7.7:** Social media companies, in partnership with the Federal Partners for Bullying Prevention Steering Committee, should adopt, implement, and evaluate on an ongoing basis policies and programs for preventing, identifying, and responding to bullying on their platforms and should publish their anti-bullying policies on their websites.
This report has illustrated that the majority of U.S. adolescents are online and most use social media sites. Social media sites such as Facebook provide a venue in which adolescents communicate with others, observe peers, build an online identity, and may be exposed to cyberbullying. Some of these social media sites provide bullying reporting options and resources, but little is known regarding how that information is used by the sites and whether their resources are effective. Previous research work confirms that the prevalence of cyberbullying is high, particularly among adolescents, and that being online more is associated with a higher risk of exposure to cyberbullying. Therefore, the online context now appears to be the second most common venue where bullying takes place. Evidence suggests that traditional adult role models such as teachers may not be effective in supporting youth in the online context. Thus, it is important that social media companies, whose platforms provide a venue for bullying, become proactively involved in this issue and provide transparency in their efforts.

**Implications for Criminal Justice Policy and Practice in the United States**

Several of the committee’s recommendations above have implications for criminal justice policy and practice in the United States. In addition, several of the recommendations are directed to the federal agencies that belong to the Federal Partners in Bullying Prevention interagency group, of which the U.S. Department of Justice is a participating member. Chapter 6 of the report addresses law and policy and the committee concluded that law and policy have the potential to strengthen state and local efforts to prevent, identify, and respond to bullying (Conclusion 6.1). Moreover, the committee also concluded that additional research is needed to further evaluate the effectiveness of anti-bullying laws and policies, including determining: (1) whether anti-bullying laws and policies are effective in reducing bullying perpetration; (2) the mechanisms through which anti-bullying laws and policies reduce
bullying (e.g., change in perceptions of school safety or norms around bullying); (3) whether anti-bullying laws and policies impact all forms of bullying (e.g., relational, physical, reputational, and cyberbullying) or merely a subset; (4) whether the beneficial consequences of these laws and policies also extend to other forms of youth violence (e.g., weapons carrying, fighting) and risky behaviors (e.g., drug/alcohol use); (5) whether, among those who are bullied, anti-bullying laws and policies are effective in reducing the adverse sequelae associated with exposure to bullying (e.g., poor academic achievement, depression, suicidal ideation); and (6) subgroups for whom anti-bullying laws and policies are most, and least, effective—and in particular, whether these laws and policies are effective in reducing disparities in bullying (Conclusion 6.4).

Impacts to Date

Since its public release one week ago, the prepublication copy of the report has been downloaded from the National Academy Press’s website nearly 2,000 times by individuals in 106 countries. The report has also received a significant amount of print, on-line, radio, and television media coverage. Appendix A provides some examples of how the report has been covered in the media.
Appendix A: Media Coverage of Preventing Bullying Through Science, Policy, and Practice

**Report: Bullying Is a Serious Public Health Problem**

Associated Press

"Its prevalence perpetuates its normalization. But bullying is not a normal part of childhood," the National Academies of Sciences, Engineering, and Medicine said.

*La Prensa ran the Spanish version of the Associated Press story: [http://www.prensa.com/salud_y_ciencia/Bullying-serio-problema-salud-publica_0_4480052105.html](http://www.prensa.com/salud_y_ciencia/Bullying-serio-problema-salud-publica_0_4480052105.html)*

**Report: Expelling bullies doesn't work, but education might**

USA Today

Experts from the National Academies of Sciences, Engineering, and Medicine said prevention efforts should instead target entire schools and give extra attention to students at risk or already involved in bullying, including both victims and the perpetrators themselves.

**Tough Penalties for Bullying Ineffective; Broader Approach Needed, Report Says**

Education Week

Some common ways schools work to prevent and respond to bullying are ineffective and, in some cases, counterproductive, a panel of researchers assembled by the National Academies of Sciences, Engineering, and Medicine wrote in a report released today.

**Zero-Tolerance for Bullying Doesn't Work, Experts Say**

NBCNews.com

Schools need to stop them now — and the federal government needs to organize better ways to stop both physical bullying and cyber bullying — because bullying is a serious national concern, according to a panel of experts commissioned by the National Academy of Sciences.

**School bullying is serious public-health problem, federal panel says**

The Seattle Times

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Sponsored by the **National Academies of Sciences, Engineering and Medicine**, the 300-page report treats bullying with an urgency similar to that surrounding concussions in youth sports.

**Why bullying needs more efforts to stop it**

The Conversation

A breadth of actors, from federal agencies to state legislatures to schools, are grappling with how to address the problem. And now a new report by the **National Academies of Sciences, Engineering, and Medicine** – a leading independent research organization – provides critical insights into bullying’s consequences and what is needed for an effective response.

**Los estragos que hacen del bullying un grave problema de salud pública**

Univision

Por ello, *el estudio de este comité* –publicado este martes por **National Academies of Sciences, Engineering, and Medicine**– recomendó el desarrollo de políticas preventivas que promuevan un buen ambiente escolar y aborden aquellos niños en mayor riesgo de sufrirlo.

**Bullies Have a Trump Card**

Slate

Unfortunately, real-world statistics bear this awful fact out: Numbers out this week from a U.S. **National Academies of Sciences, Engineering, and Medicines** report indicate that between 18 percent to 31 percent of children and teens are bullied in school.

**Bullying: Serious, Lasting Psychological Consequences**

Medscape (subscription)

Bullying is a serious public health problem, with significant short- and long-term psychological consequences for the child who is bullied, the child who is the bully, the child who is both bully and victim, and bystanders, says a new report from the **National Academies of Sciences, Engineering, and Medicine** (NAS).

**Voice of America – International Edition**

The highest figure of internally displaced people ever reported. Turkey opens a military base in Qatar. Bullying could have long term affects. Singer Justine Timberlake releases a new single. 

*Dr. Rivara’s interview starts at 12:40 and goes to 16:25*
Un fortunately, according to a new report issued this week by the National Academies of Science, Engineering, and Medicine, these efforts aren’t working — not well enough, at least.

But far from just being a traditional part of growing up, the report from the National Academies of Sciences, Engineering, and Medicine finds the process of bullying exposes children to long term negative effects.

A new study conducted by researchers from the National Academies of Sciences, Engineering and Medicine shows that bullying is a public health problem. This unwanted aggressive behavior has physical and mental effects on both the bully and the victim.

Researchers from the National Academies of Sciences, Engineering, and Medicine (NASEM) said in a report published on May 10 that suspending and dismissing bullies do not stop them from continuing the act.

Bullying can lead to serious health problems, and it's time to recognize this, says the National Academies of Sciences, Engineering and Medicine in a report released just recently.

St. Jude School installs a Buddy Bench

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In a report released Tuesday, the National Academies of Sciences, Engineering, and Medicine said bullying should never be deemed as a normal part of childhood. In addition, schools, the researchers concluded, should end zero-tolerance policies that automatically suspend students for bullying.

Bullying Is A Serious Public Health Problem, Not A Normal Part Of Childhood; Zero-Tolerance Doesn’t Work, Experts Warn

According to Associated Press, a 300-page report of the National Academies of Sciences, Engineering and Medicine stated that bullying is now appropriately considered to be a serious public health problem and should not be treated as a normal behavior among children.

KNSD-SD (NBC) – San Diego, CA

NBC 7 News at 4

The report by the National Academy of Sciences, Engineering, and Medicine says zero tolerance leads to under-reporting because the consequences can be perceived as being too harsh and students don’t want to get other students in so much trouble.

WCBS-NY (Radio) – New York, NY

Joining is Fred Rivara who chaired the committee that conducted the study for the National Academy of Sciences, Engineering, and Medicine.

Report: Bullying is a public health threat, not a rite of passage

FOX 13 Now – Salt Lake City, UT

The National Academies of Science, Engineering and Medicine released a book-length report outlining the problem of bullying and the best practices for preventing it, ultimately concluding that bullying is a serious public health problem.

New report suggests new measures for prevention of bullying

ABC2 News – WMAR Baltimore

Researchers from the National Academy of Sciences, Engineering and Medicine say efforts to stop bullying should be delivered to the entire student body. Those involved in the bullying -- both the victims and the bullies themselves -- would be given extra attention.

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A new report says that zero tolerance policies in schools are not enough to tackle the issue of bullying. The National Academy of Sciences, Engineering, and Medicine say it’s time to recognize bullying as a serious public health issue.

Bullying is being dubbed a serious public health problem. A report from the National Academy of Sciences, Engineering, and Medicine finds that bullying has both long and short term health impacts.

Bullying is a serious health problem. That’s the finding from a new report by the National Academy of Sciences, Engineering and Medicine. Sandra Graham is a member of the committee that wrote the report.

A panel of experts is now urging schools to do more about bullying and say that it’s a serious health issue. Sandra Graham with the University of California: “It’s up to the schools to be doing more proactive efforts to teach tolerance.” The National Academy of Sciences, Engineering, and Medicine say bullying happens when a targeted person is perceived as being different.

There’s a new report from the National Academy of Sciences, Engineering, and Medicine that says a third of kids in America face bullying in some way, shape, or form.

In a major review of studies on bullying, a blue ribbon National Academy of Sciences panel says more targeted programs are needed focusing on kids who bully and on groups most likely to be victimized, including disabled, gay, lesbian, and transgender youth.

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The National Academy of Sciences, Engineering, and Medicine say that the bullying should no longer be looked at as kids just being kids.

The National Academy of Sciences, Engineering, and Medicine say bullying is not part of childhood and shouldn’t be dismissed as merely kids being kids.

A new report from the National Academy of Sciences, Engineering, and Medicine labels it that way and says zero tolerance policies won’t work.

But the National Academy of Sciences put out a release this week saying zero-tolerance policies don’t work and that they might backfire.

The recommendations come in a new report from the National Academy of Sciences, Engineering, and Medicine. Researchers analyzed the biological and psychosocial consequences of bullying

An interesting report from the National Academy of Sciences, Engineering and Medicine says zero-tolerance policy on bullying in schools don’t work.

A panel of experts commissioned by the National Academy of Sciences said Tuesday that zero tolerance bullying policies don’t work and may actually backfire.
The National Academy of Sciences, Engineering and Medicine said that zero tolerance policies in which the students are basically automatically suspended for bullying could do more harm than good.

A new report was done by the National Academy of Sciences and says zero tolerance doesn’t work, kicking bullies out of school doesn’t work nor does fighting back.

The National Academy of Sciences, Engineering and Medicine say bullying should no longer be looked at as kids being kids.

Bullying is a public health problem. The National Academies of Sciences, Engineering and Medicine says anywhere between 18 to 31 percent of kids are affected by a bully.

The National Academy of Sciences says that zero tolerance policies are not helping.