

# Social and Relational Health Risks and Common Mental Health Problems Among US Children



## The Mitigating Role of Family Resilience and Connection to Promote Positive Socioemotional and School-Related Outcomes

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### KEYWORDS

- Food insecurity • Economic hardship • Neighborhood violence
- Racial discrimination • Relational health • Parent mental health • Parental stress
- Family resilience

### Abbreviations

NSCH	National Survey of Children's Health
MEB	Mental, emotional, and/or behavioral health problems
SHR	Social health risks
RHR	Relational health risks
ACE	Adverse childhood experience
SR	Self-regulation
FRI	Family Resilience Index
PCC	Parent-child connection
CSHCN	Children With Special Health Care Needs
CTC	Communities that Care
PROSPER	Promoting School-University Partnerships to Enhance Resilience
aOR	Adjusted odds ratio

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## KEY POINTS

- The prevalence of common mental, emotional, and behavioral conditions (MEB) among US children ages 3 to 17 years is 21.8% and varies 4-fold according to the number of relational health risks (RHR) and/or social health risks (SHR) they experience (15.1%–60.4%).
- Nearly 70% (67.6%) of US children aged 3 to 17 years with MEB experience significant RHR (multiple adverse childhood experiences, poor or fair parent/caregiver mental health, high parental stress) and/or SHR (serious economic hardship, food insufficiency, neighborhood violence, racial discrimination) versus 49.3% for children without MEB.
- Children with MEB were nearly half as likely as those without MEB to routinely demonstrate self-regulation (SR; 38.1% vs 73.9%), yet the prevalence of SR for children with MEB varied widely based on their RHR and SHR status (28.3%–50.4%).
- Across all levels of SHR and/or RHR, children with MEB who experienced greater family resilience and parent-child connection were significantly more likely to consistently demonstrate good SR. In turn, this was associated with improved school-related outcomes.
- Child health professionals need to adopt evidence-based preventive, diagnostic, treatment, and counseling approaches that address the mental health impact of children's social and RHR, address the trauma associated with these risks, and build child SR, family resilience skills, and strong parent-child connections. Collaborative, community-based, public health strategies that engage youth, families, as well as health, education, social, and other public services agencies also hold promise.

## INTRODUCTION

The increase in child and adolescent mental health problems, suicides, and suicide attempts that have occurred through the coronavirus pandemic<sup>1–4</sup> have confirmed our best science. Positive and adverse social and relational experiences have concrete biologic impacts that shape child development, social and emotional skills, mental health, and overall well-being.<sup>5–8</sup> Socially, children must have basic needs met, like food,<sup>9,10</sup> safe housing,<sup>11</sup> and neighborhoods free from violence<sup>12</sup> and racism.<sup>13</sup> Relationally, healthy development requires the presence of safe, stable, and nurturing relationships across all contexts where children learn, play, and grow.<sup>6,7,14</sup> Efforts to promote mental health and treat mental health problems in children must address their social and community context. Ultimately approaches are needed to repair compromised relationships or establish new ties to caring adults, as well as improve children's social and emotional skills, so they are able to develop and maintain positive relationships throughout life.<sup>5–7,14</sup>

Although Americans value the mental health of children,<sup>15</sup> high rates of diagnosed mental health problems and diminished social and emotional well-being among US children persist along with school and social problems, all of which have long-term impacts on lifelong well-being.<sup>5</sup> At the same time, implementation of evidence-based approaches to prevent or mitigate risks to children's mental health and promote their healthy social and emotional development lags.<sup>5–7,14</sup> A recent synthesis of a series of National Academy of Sciences (NAS) expert reports documents widespread consensus on the urgent need for the United States to prioritize policies that promote the mental health of its children.<sup>16</sup> Common across these reports is a call for integrated and upstream strategies to address the constellation of child-, family-, and community-level risks rather than focusing on single risk factors. Common

recommendations include: (1) collaborative efforts across health, education, and social services sectors; (2) team-based approaches to prevent and mitigate risks by proactively promoting child-, family-, and community-level protective factors; (3) training, payment, and performance measurement strategies focused on healthy child development and positive health; and (4) integrated systems of care that address the health and well-being of the whole child and whole family.<sup>16</sup>

There is growing agreement that child primary care, mental health services, and other child-serving community-based services must consider and address children's social and relational health risks (RHR).<sup>5–8,17,18</sup> This includes approaches that address modifiable community-level social health risks (SHR; eg, poverty,<sup>19</sup> food insecurity,<sup>11</sup> exposure to community violence,<sup>12</sup> or racism<sup>13</sup>) and family-level RHR (eg, adverse childhood experiences [ACEs]<sup>6,20,21</sup> or caregivers who lack support or are not coping well) that threaten children's healthy physical, mental, social, and relational development and well-being.<sup>22,23</sup> Few studies have evaluated the extent to which community-level SHR versus family-level RHR are differentially associated with children's mental health or are present among children with mental health problems, especially on a population basis for all US children. Such information is critical to inform and improve the methods that health care organizations and other child and youth-serving agencies use to assess and pursue opportunities to promote positive child mental health and reduce risks to the mental health of children.

Similarly, although many studies focus on single SHR or RHR, population-based studies that examine the complexity (eg, experiencing both SHR and RHR) and cumulative impact of a range of evidence-based social and relational risks to children's mental health are few. Such studies are needed to inform policy and practice and are especially relevant given strong evidence pointing to the impact of cumulative (vs single) risks and the common toxic stress-related neurobiological and developmental pathways through which SHR and RHR can impact child mental health, regardless of the specific risk involved.<sup>6,7,14</sup>

National, state, and local policymakers and child health services programs, family and community leaders, and professionals need to better understand and mitigate the impact of SHR and RHR on children's mental health and promote resilience. In this, data demonstrating how, at a population level these types of risks co-occur, interact, and are associated with healthy child development and school and social outcomes is essential. It is especially important to foster understanding about how the toxic stress and trauma associated with RHR and SHR may be impacting the development of essential positive social and emotional skills, such as self-regulation (SR) of emotions and behavior, and, in turn, the academic and social functioning of US children.<sup>6,8,21,24–30</sup> Such an understanding is key to the translation of existing evidence-based approaches shown to promote positive social and emotional skills and resilience, even among children experiencing toxic stress and trauma and mental, emotional, and behavioral problem (MEB) symptoms related to current or past SHR and RHR.<sup>6,27,31–35</sup> In turn, this can reduce behaviors resulting in diminished academic and social functioning, like reduced school engagement and attendance and/or bullying victimization and/or perpetration.<sup>6,8,21,26,29,30,36–38</sup>

Further elucidating at a population level, the mitigatable protective factors that can reduce negative impacts of SHR and RHR is also important to inform effective child mental health promotion, prevention, and treatment policies and practices. In particular, a positive parent-child bond has been identified as perhaps the most critical factor for healthy child development and positive mental health and flourishing, with potential to strongly buffer against substantial SHR and RHR exposure.<sup>6,7,14,33–35,39–45</sup> Family resilience, which has been conceptualized as the

capacity of the family system to withstand stressors and maintain positive functioning, has also been shown in emerging research to offer another source of protection against the negative effects of SHR and/or RHR on children's SR and mental health.<sup>22,40,43,46,47</sup>

In this study, we leveraged nationally representative data on US children to advance population-based knowledge and inform efforts to prevent and optimize positive mental health for all US children. Specifically, we (1) estimated the prevalence of evidence-based SHR and RHR among US children with and without MEB; (2) examined variations in the prevalence of MEB among US children based on their SHR and RHR; (3) explored associations between the SHR and RHR experienced by children with MEB and their SR skills, engagement and attendance in school and school-based bullying victimization and/or perpetration; and (4) examined whether greater family resilience and parent-child connection (PCC) is associated with stronger SR skills among children with MEB and SHR and/or RHR and, in turn, improved school engagement and attendance and reduced bullying victimization and/or perpetration.

## **METHODS**

### ***Data and Population***

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We used data from a combined 2016 to 2019 National Survey of Children's Health (NSCH;  $n = 131,774$ ) data set we created for this study.<sup>48,49</sup> The NSCH is an annual survey led by the US Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau (MCHB) in collaboration with the US Bureau of the Census.<sup>48</sup> The NSCH relies on address-based sampling and is self-administered by the caregiver (parent or guardian) of a randomly selected child (age 0–17 years) in sampled households. Missing value rates were less than 3% for any individual item used in the study, which is well under the suggested 5% to 10%.<sup>50</sup> This study evaluated data for children ages 3 to 17 years. All data were weighted and adjusted for the complex sampling design of the NSCH to produce estimates representative of all children nationally and across states. See [Appendix A1](#) for further details.<sup>51</sup>

## **KEY MEASURES**

Below is a summary of variables used in this study. See Ref. [49](#) and [Appendix A2](#) for further detail on the scoring of each measure.<sup>51</sup>

### ***Mental, Emotional, and Behavioral Conditions***

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Children were identified as having MEB if (1) their caregiver/parent indicated that their child currently experienced any type of ongoing MEB that requires treatment or counseling as reported using the Children with Special Health Care Needs (CSHCN) Screener<sup>52</sup>; and/or (2) their caregiver reported that the child currently has one or more of 10 mental health conditions that a doctor told them their child had, including depression, anxiety, conduct/behavior disorder, attention-deficit/hyperactivity disorder (ADHD), a learning disability, autism, developmental delay, intellectual disability, Tourette syndrome, or speech disorder.<sup>49</sup>

### ***Social Health Risks and Relational Health Risks Variables***

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We optimized data available in the NSCH to specify robust and parsimonious SHR and RHR indices each made up of risks documented to be associated with child mental health. We built on Sameroff and colleague's approach, whereby risk measures were selected based on: (1) prominent models and measures with significant literature

basis on the risk's impact on child mental health and development; (2) high reliability of individual risk measures; and (3) nonredundant information provided by individual measures assessed based on across-measure correlation findings.<sup>53,54</sup> We also sought to identify measures aligned with prominent social determinants of health (SDOH) assessments used in the field, such as the Accountable Health Communities (AHC) Health-Related Social Needs (HRSN) Screening Tool and the Safe Environment for Every Kid (SEEK) screener.<sup>55,56</sup> See [Appendix A4](#) for a cross-walk between the SHR and RHR specified for this study and the AHC-HRSN and other SDOH screening instruments.<sup>51</sup>

We used dichotomous high/low cutoff scores for each measure, with specific criteria based on values known to be predictive of child mental health outcomes or clinical/diagnostic criteria.<sup>5,8,49,57</sup> When setting cutoffs, we took a conservative approach that errs on the side of positive predictive value over negative predictive value such that if a child was positively identified on any measure, there would be unarguable evidence that the child was at risk (eg, children met cutoff criteria if *caregivers* reported “poor or fair” overall mental health status even though “good” reports often suggest children are at increased risk compared to those with “very good” and “excellent” ratings<sup>58,59</sup>). Below, we provide an overview of individual measures constructed using the NSCH that were included in the SHR and RHR composite variables.

The *SHR* index includes 4 measures prior research documents are associated with child mental health. These SHR measures identify children whose caregivers reported that they: (1) sometimes or often could not afford enough food to eat<sup>9,10</sup>; (2) experienced serious economic hardship and somewhat often or very often found it hard to cover the costs of basics needs, including housing<sup>19</sup>; (3) lived in an unsafe neighborhood or where the child was a victim of or witnessed violence<sup>12</sup>; and (4) witnessed their child being treated or judged unfairly because of his or her race or ethnic group.<sup>13</sup> Pearson's correlations among the 4 SHR measures were evaluated to assess information redundancy, which we sought to minimize. Correlation ranged from 0.06 to 0.37 and each was low using standard intervals established in the literature to evaluate the strength of correlations ( $r = 0$ , *no correlation*;  $r =$  below  $\pm 0.10$ , *low*;  $r = \pm 0.30$ , *moderate*;  $r \geq \pm 0.50$ , *large*;  $r = 1$ , *perfect correlation*) with one moderate correlation (0.37 correlation between serious economic hardship and food insecurity).<sup>60</sup>

The *RHR* index includes 4 measures that prior research documents are associated with children's social and emotional skills and mental health. These measures identify children who: (1) ever experienced 2 or more of 6 household level ACEs using the validated NSCH ACEs indicator (serious parental mental illness, household substance, drug or alcohol abuse, witnessed domestic violence, parental death, divorce/separation, or incarceration)<sup>6,20,21,61</sup>; (2) had 1 or 2 caregivers with fair/poor mental health<sup>5,8,10,62–64</sup>; (3) had a caregiver report frequent aggravation with their child<sup>23</sup>; and (4) had a caregiver who lacked emotional support or was not coping well.<sup>22</sup> Pearson's correlations among the 4 RHR measures were evaluated to assess information redundancy. Correlation ranged from 0.04 to 0.18 and each was low using standard intervals established in the literature to evaluate the strength of correlations.<sup>60</sup> Correlations across all 8 SHR and RHR index measurement criteria ranged from 0.03 to 0.37.

*RHR and SHR scoring:* First, we created SHR and RHR count variables indicating whether a child experienced 0, 1, or 2 to 4 of the SHR and RHR evaluated. We then created a mutually exclusive combinations composite variable indicating whether children experienced any number of (1) both SHR and RHR; (2) SHR only; (3) RHR only; or (4) neither RHR and SHR. See [Appendix A2](#) for details on each SHR and RHR criteria and [Appendix A3](#) for correlations across SHR and RHR individual measures.<sup>51</sup>

## **CHILD HEALTH OUTCOMES AND FAMILY PROTECTIVE FACTORS**

Four child health outcomes associated with child exposure to SHR and RHR and their mental health were evaluated: SR skills, engagement in school, school attendance, and bullying victimization and/or perpetration. Two family protective factors variables included the Family Resilience Index (FRI) and an indicator of PCC. Specification of each of these variables is summarized below.

### ***Child Self-regulation***

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The child SR measure available in the NSCH provides an overall evaluation of whether children demonstrate the ability to “bounce back quickly when things do not go their way” (age 3–5 years) or “stay calm and in control when faced with a challenge” (age 6–17 years). These measures were developed and validated for use in the NSCH as part of a larger child flourishing index<sup>40,65</sup> that assesses a child’s capacity for regulating stimulus-driven emotion and physiologic stress response systems and the capacity for avoiding inappropriate or aggressive actions. This indicator of a child’s SR skills represents an important subconstruct within broader definitions of child SR and is strongly associated with the ability of children to have positive interactions with others and the ability to carry out self-directed learning.<sup>31,32</sup> Children were identified as “consistently demonstrating self-regulation skills” if their caregivers reported “definitely true” (2016–2017 NSCH) or “usually/always” to the NSCH SR items.

### ***Engagement in School***

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School-age children ages 6 to 17 years met criteria for school engagement if their caregivers reported that their child “cares about doing well in school” and “does all required homework.”

### ***Missed School***

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Children ages 6 to 17 years were identified as missing more than 2 or more weeks of school in the past years if they were enrolled in school and their caregiver reported that they missed 11 or more school days because of an illness or injury during the past 12 months.

### ***Bullying Victimization and/or Perpetration***

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This measure was constructed by combining caregiver/parent responses to 2 questions assessing whether in the past 12 months their child was (1) bullied, picked on, or excluded other children and/or (2) bullied, picked on, or excluded by other children. These questions were asked for children ages 6 to 17 years and were combined because of their co-occurring nature at the child level.

### ***Parent-Child Connection***

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Whether children experience strong “PCC” was assessed for children ages 6 to 17 years based on caregiver responses to the question “How well can you and this child share ideas or talk about things that really matter?”

### ***Family Resilience Index***

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Whether children live in a family that consistently practices resilience skills was assessed using the validated, 4-item NSCH FRI,<sup>40</sup> which asks caregivers how often, when their family faces problems, they talk together about what to do, work together to solve their problem, know they have strengths to draw on and stay hopeful in difficult times.

### ***Other Child Characteristics***

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Other measures used in this study included child age (3–5, 6–11, and 12–17 years); sex (male = 1, female = 0); race and ethnicity (Hispanic, Non-Hispanic Black, Non-Hispanic White, and Other/Multiracial); household poverty level (calculated as a percentage of the federal poverty level; 0%–99%, 100%–199%, 200%–399%, and  $\geq$  400%); and type of health insurance (public, uninsured, and private).

### **ANALYTICAL PROCEDURES**

#### ***Prevalence of Social Health Risks and Relational Health Risks and Variations in Mental, Emotional, and/Or Behavioral Health Problems Among all US Children by Their Social Health Risks and Relational Health Risks (Study Aim 1 and 2)***

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SHR and RHR prevalence rates were constructed and evaluated for all children ages 3 to 17 years with and without MEB, by specific MEB conditions (eg, depression, anxiety, conduct disorder, ADHD) and for all other key study variables. MEB prevalence rates were calculated for all US children ages 3 to 17 years and separately for children in each of the 4 SHR and RHR mutually exclusive combination categories as well as their SHR and RHR measure count score and for each of the 8 individual SHR and RHR measures. MEB prevalence was also calculated by all study outcomes and protective factors and child characteristics described earlier. Chi-square tests were used to assess the significance of all observed differences. Multivariable logistic regression analyses were used to calculate adjusted odds ratios (aORs) to evaluate the significance and magnitude of observed associations and variations after adjusting for children's age, sex, race/ethnicity, household poverty level, and insurance status/type.

#### ***Evaluating Associations Between Child's Self-regulation Skills and Their School Engagement, Missed School and Bullying/Bullied Outcomes by Social Health Risks and Relational Health Risks (Study Aim 3)***

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Multivariable logistic regression analyses were used to evaluate associations between each of the 3 school-related study outcomes (engagement in school, missed school, bullying victimization and/or perpetration) and children's (1) SR and (2) SHR and RHR status. Stratified logistic regression models were used to assess differences in associations between school-related outcomes and children's SR status overall and separately for mutually exclusive SHR and RHR subgroup (both SHR/RHR, SHR only, RHR only, neither).

#### ***Estimating Associations Between Children's Self-regulation and Their Family Resilience and Parent-Child Connection Status Across Social Health Risks and Relational Health Risks Subgroups (Study Aim 4)***

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We conducted a series of multivariate logistic regression analyses to evaluate associations between children's SR status and their family resilience and PCC status. Analyses were conducted for all children with MEB and separately for children with MEB based on their SHR and RHR status.

All regression analyses controlled for children's sex, age, race/ethnicity, household poverty level, and insurance status/type. Results are presented as aORs with 95% confidence intervals (95% CI). All analyses were conducted using SPSS version 25 (IBM).

### **RESULTS**

#### ***Prevalence of Social Health Risks and Relational Health Risks Among US Children with Mental, Emotional, and/or Behavioral Health Problems (Study Aim 1)***

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Nearly 70% (67.6%) of US children ages 3 to 17 years with MEB experienced RHR and/or SHR versus 49.3% for children without MEB. RHR were more common than

SHR among children with MEB (56% vs 42.5%,  $P < .001$ ). Serious economic hardship was the most prevalent SHR (31.7%) and having 2 or more household level ACEs was the most prevalent RHR (28.5%) (Table 1).

### ***Variations in Mental, Emotional, and/or Behavioral Health Problems Prevalence by the Social Health Risks and Relational Health Risks Status of Children (Study Aim 2)***

The prevalence of MEB among US children ages 3 to 17 years was 21.8% and varied 4-fold (15.1%–60.4%,  $P < .001$ ) across groups of children according to both the type and amount of RHR and SHR they experienced (Fig. 1). Children with any or both SHR and RHR were more likely to have MEB compared to children with neither type of risk. Children with 2 to 4 RHR were more likely to have MEB than children with 2 to 4 SHR (50.1% vs 41.6%,  $P < .001$ ; see Table 1). As shown in Fig. 1, 60.4% of US children ages 3 to 17 years had MEB if they experienced both 2 to 4 SHR and 2 to 4 RHR, whereas 28.8% of children with 2 to 4 SHR and no RHR had MEB and 42.3% of children had MEB if they had 2 to 4 RHR and no SHR. See Fig. 1 for more in-depth findings and aORs associated with these comparisons. See Appendix B2 for regression details associated with Fig. 1.

The prevalence of specific MEB conditions was higher for children who experienced SHR and/or RHR. This was especially true for depression, conduct disorder, and anxiety. For instance, children had 9.17 greater odds (95% CI, 7.64–11.00) of having depression if they experienced both SHR and RHR than if they experienced neither type of risk. Overall, having any RHR was more strongly associated with most of the specific MEB conditions assessed as compared with having SHR only. See Table 2 for detailed findings.

Additional findings on the prevalence and characteristics of US children with MEB can be found in Table 1 (eg, age, sex, race/ethnicity, type of health insurance). Of note, once adjusted for SHR, the prevalence of MEB was slightly, but significantly, lower for non-white and lower-income children across all levels of RHR (see Appendix B2). In addition, publicly insured children were 1.56 times more likely to have MEB than privately insured children (28.6% vs 18.3%,  $P < .001$ ).

### ***School-Related Outcomes Among Children with Mental, Emotional, and/or Behavioral Health Problems by Their Self-regulation and Social Health Risks and Relational Health Risks Status (Study Aim 3)***

Overall, US children aged 3 to 17 years with MEB were nearly half as likely as those without MEB to consistently demonstrate good SR skills (38.1% vs 73.9%,  $P < .001$ ; see Table 1). Yet, the prevalence of children with MEB who consistently demonstrated SR varied from 28.3% for those with both SHR and RHR to 50.4% for children with neither type of risk ( $P < .001$ ; aOR, 0.45; 95% CI, 0.38–0.53). See Tables 3 and 4 for additional findings.

US children ages 6 to 17 years with MEB were nearly 2 times more likely to engage in school if they consistently demonstrated good SR skills (74.7% vs 39.1%; RR, 1.91). Said differently, compared to school-age children with MEB demonstrating SR, those with poorer SR had 77% lower odds of engaging in school (aOR, 0.23; 95% CI, 0.20–0.26). Similarly, children not consistently demonstrating good SR had 1.60 times greater odds (95% CI, 1.29–1.97) of missing 2 or more weeks of schools in the past year (11.1% vs 7.2%,  $P < .001$ ) and 1.37 times greater odds (95% CI, 1.21–1.54) of bullying victimization and/or perpetration (61.5% vs 53%,  $P < .001$ ) compared to children with MEB who did demonstrate SR (see Table 3).

The prevalence of each of these outcomes also varied according to children's SHR and RHR status. Across the 4 SHR/RHR mutually exclusive groups, school

**Table 1**  
Prevalence and characteristics of US children who have one or more of the common MEB assessed in the National Survey of Children's Health.

Child Characteristics	Prevalence of MEB by Child Characteristics		Among All Children		Prevalence of Child Characteristics by MEB Status			
					Among Children MEB		Children Without MEB	
	n	%	n	%	n	%	N	%
All children, aged 3–17 y	27,433	21.8%	114,476	100	27,433	21.8%	87,043	78.2%
Age, y <sup>a,b</sup>								
3–5	2537	13.1%	20,107	19.4%	2537	11.7%	17,570	21.6%
6–11	9679	22.2%	39,935	40.1%	9679	41.0%	30,256	39.9%
12–17	15,217	25.5%	54,434	40.4%	15,217	47.4%	39,217	38.5%
Sex <sup>a,b</sup>								
Male	16,070	25.5%	59,116	51.1%	16,070	59.9%	43,046	48.7%
Female	11,363	17.9%	55,360	48.9%	11,363	40.1%	43,997	51.3%
Race/ethnicity <sup>a,b</sup>								
Hispanic	3031	19.3%	13,131	25.3%	3031	22.5%	10,100	26.1%
White, Non-Hispanic	19,779	23.6%	79,637	50.5%	19,779	54.7%	59,858	49.4%
Black, Non-Hispanic	1832	23.3%	7224	13.6%	1832	14.6%	5392	13.4%
Other, Non-Hispanic	2791	17.1%	14,484	10.5%	2791	8.2%	11,693	11.1%
Income level (FPL) <sup>a,b</sup>								
0%–99% FPL	3891	26.0%	12,643	20.2%	3891	24.2%	8752	19.1%
100%–199% FPL	4984	23.0%	18,351	21.9%	4984	23.1%	13,367	21.6%
200%–399% FPL	8320	20.6%	35,271	27.3%	8320	25.8%	26,951	27.8%
400% FPL or more	10,238	19.2%	48,211	30.5%	10,238	26.9%	37,973	31.5%
Insurance status and type <sup>a,b</sup>								
Has public insurance	9347	28.6%	26,111	35.2%	9347	46.2%	16,764	32.1%

(continued on next page)

**Table 1**  
(continued)

Child Characteristics	Prevalence of MEB by Child Characteristics		Among All Children		Prevalence of Child Characteristics by MEB Status			
	n	%	n	%	Among Children MEB		Children Without MEB	
					n	%	N	%
Has private insurance only	16,701	18.3%	81,844	58.2%	16,701	48.9%	65,143	60.8%
Is uninsured	983	16.1%	4,773	6.7%	983	4.9%	3,790	7.1%
<b>SHR and RHR status<sup>a,b</sup></b>								
Has both SHR and RHR	6,916	39.5%	14,960	16.9%	6,916	30.8%	8,044	13.1%
Has SHR, not RHR	2,809	23.1%	10,928	11.0%	2,809	11.7%	8,119	10.9%
Has RHR, not SHR	7,117	21.6%	25,579	25.3%	7,117	25.1%	18,462	25.4%
Has neither SHR nor RHR	10,225	15.1%	61,342	46.7%	10,225	32.4%	51,117	50.7%
<b>SHR criteria count<sup>a,b</sup></b>								
0	17,345	17.4%	86,941	72.0%	17,345	57.5%	69,596	76.0%
1	6,351	29.0%	18,681	19.1%	6,351	25.4%	12,330	17.3%
2–4	3,375	41.6%	7,213	8.9%	3,375	17.1%	3,838	6.7%
<b>Specific SHR criteria</b>								
Food insecurity: Sometimes or often could not afford enough to eat <sup>a,b</sup>	1,995	38.4%	4,621	6.1%	1,995	10.7%	2,626	4.8%
Serious economic hardship: Somewhat often/very often hard to cover costs of basic needs, like food, housing <sup>a,b</sup>	7,173	34.2%	18,775	20.2%	7,173	31.7%	11,602	17.0%
Neighborhood safety/violence: Lived in an unsafe neighborhood or where the child was a victim of or witnessed violence <sup>a,b</sup>	3,409	39.5%	7,485	8.9%	3,409	16.1%	4,076	6.8%
Racial discrimination: Child has been treated or judged unfairly because of their race/ethnic group <sup>a,b</sup>	1,471	34.4%	3,927	4.6%	1,471	7.3%	2,456	3.8%
<b>RHR criteria count<sup>a,b</sup></b>								

0	13,163	16.7%	72,858	57.8%	13,163	44.3%	59,695	61.5%
1	8862	22.7%	31,280	32.9%	8862	34.2%	22,418	32.5%
2–4	5243	50.1%	9488	9.3%	5243	21.4%	4245	6.0%
<b>Specific RHR criteria</b>								
Multiple ACEs: Exposed to 2 or more household level ACEs <sup>a,b</sup>	7044	41.2%	15,947	15.1%	7044	28.5%	8903	11.3%
Poor/Fair caregiver mental health: 1 or 2 caregivers reported poor or fair mental health <sup>a,b</sup>	3566	42.5%	8090	7.5%	3566	14.7%	4524	5.5%
Parental aggravation: Child's caregiver usually/always felt aggravated with child <sup>a,b</sup>	4671	71.1%	6001	5.4%	4671	17.5%	1330	2.0%
Poor parent coping/support: Child's caregiver is coping not very well or not well at all and or lacks emotional support <sup>a,b</sup>	5724	20.1%	22,490	26.3%	5724	24.3%	16,766	26.9%
<b>SR<sup>a,b</sup></b>								
Consistently demonstrated good SR (definitely true; always/usually true)	10,295	12.6%	74,351	66.1%	10,295	38.1%	64,056	73.9%
Did not consistently demonstrate good SR (somewhat true or sometimes)	13,518	35.5%	34,520	30.0%	13,518	48.8%	21,002	24.7%
Not true or never	3291	72.2%	4241	4.0%	3291	13.2%	950	1.4%
<b>School engagement, ages 6–17 y<sup>a,b</sup></b>								
Engaged in school	12,758	16.3%	69,634	75.6%	12,758	51.7%	56,876	83.1%
Did not engage in school	11,883	47.4%	23,721	24.4%	11,883	48.3%	11,838	16.9%
<b>Missed school days, ages 6–17 y<sup>a,b</sup></b>								
0–10 d in past year	21,984	22.5%	88,746	95.9%	21,984	90.4%	66,762	97.6%
11+ d/2+ wk in past year	2439	56.2%	3968	4.1%	2439	9.6%	1529	2.4%
<b>Bullying victimization and/or perpetration, ages 6–17 y<sup>a,b</sup></b>								
Yes	14,286	38.3%	34,984	36.5%	14,286	58.4%	20,698	29.6%
No	10,358	15.7%	58,352	63.5%	10,358	41.6%	47,994	70.4%

(continued on next page)

**Table 1**  
(continued)

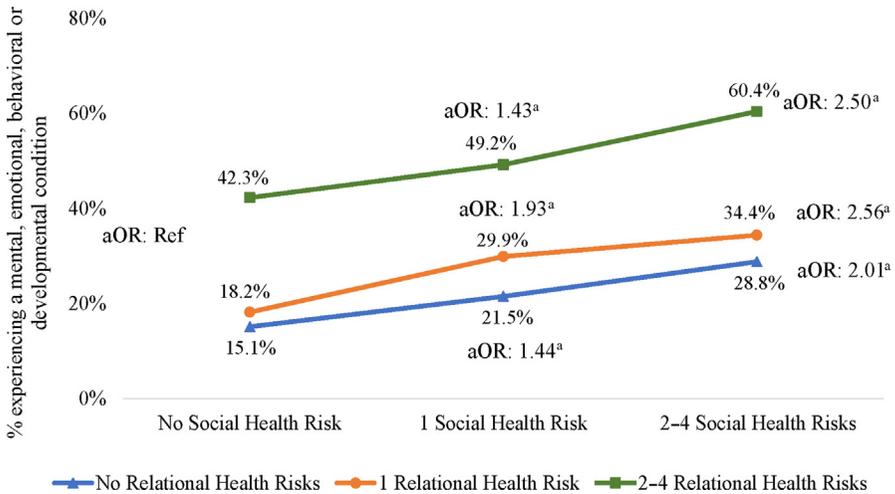
Child Characteristics	Prevalence of MEB by Child Characteristics		Among All Children		Prevalence of Child Characteristics by MEB Status			
					Among Children MEB		Children Without MEB	
	n	%	n	%	n	%	N	%
FRI score <sup>a,b</sup>								
Met 0–1 criterion	14,928	26.1%	53,184	42.9%	14,928	51.3%	38,256	40.5%
Met 2–3 criteria	5288	20.6%	22,921	20.4%	5288	19.3%	17,633	20.8%
Met all 4 criteria	6901	17.5%	36,802	36.7%	6901	29.4%	29,901	38.7%
Parent-Child connection, ages 6–17 y: Parents and children share ideas or talk about things that really matter <sup>a,b</sup>								
Very well	12,131	17.5%	61,364	66.9%	12,131	49.0%	49,233	72.6%
Somewhat well	9456	32.4%	27,245	28.6%	9456	38.6%	17,789	25.4%
Not very well or not well at all	2932	65.7%	4099	4.5%	2932	12.4%	1167	2.0%

Data for ages 3–17 years unless otherwise noted.

Abbreviation: FPL, federal poverty level.

<sup>a</sup> Indicates that differences in the prevalence of MEB across child characteristic are statistically significant at the *P* value less than .001 level of significance.

<sup>b</sup> Indicates that differences in the prevalence of child characteristics and SHR and/or RHR between children with or without MEB are statistically significant at the *P* value less than .001 level of significance.



**Fig. 1.** Prevalence of US children age 3 to 17 years who experienced an MEB, by their SHR and RHR criteria count. Data: 2016 to 2019 National Survey of Children’s Health. Notes. All prevalence rates are weighted to represent the US child population ages 3 to 17 years. aORs are adjusted for age, sex, race/ethnicity, income and insurance coverage type. <sup>a</sup>aORs are statistically significant after adjusting for age, sex, race/ethnicity, income and insurance coverage type. See [Technical Appendix B1](#) for detailed stratified regression analysis findings.

engagement ranged from 41.4% to 64.0% ( $P < .001$ ) and aORs engagement in school was 28% to 53% lower for children with MEB who experienced SHR and/or RHR compared to those with neither type of risk (see [Appendix C1](#)). The prevalence of children with MEB who missed 2 or more weeks of school in the past year ranged from 4.4% to 14.8% ( $P < .001$ ) across SHR/RHR subgroups (aORs ranged from 1.99 to 3.41). The prevalence of bullying victimization and/or perpetration ranged from 49.1% to 70.4% ( $P < .001$ ) across SHR/RHR subgroups (aORs ranged from 1.33 to 2.68). All aORs were statistically significant for all 3 outcomes (see [Appendix C1](#)).

Findings on associations between the SR and school engagement status of children with MEB were consistent when separately evaluated across each mutually exclusive subgroup of children according to their SHR and RHR status (both SHR/RHR, SHR only, RHR only, neither). As shown in [Fig. 2](#), across each SHR/RHR subgroup, children with MEB were 3.06 to 3.75 times more likely to engage in school if they had good versus poor SR skills. See [Fig. 2](#) and [Appendix D1](#) for regression details associated with [Fig. 2](#). See [Appendix D2](#) and [D3](#) for regression details and results for the “missed school” and bullying victimization and/or perpetration outcomes. Of note, although both higher SR and exposure to SHR and/or RHR were independently associated with higher prevalence of missed school and bullying victimization and/or perpetration, aORs comparing these outcomes across SHR and RHR subgroups for children with and without stronger SR were significant only for children with RHR only (see [Table 3](#)).

#### ***Self-regulation Among Children with Mental, Emotional, and/or Behavioral Health Problems by Their Family Resilience, Parent-Child Connection and Social Health Risks and Relational Health Risks Status (Study Aim 4)***

Children with MEB who experienced greater family resilience and PCC were significantly more likely to consistently demonstrate good SR skills (see [Table 4](#)). As shown

**Table 2**  
**Prevalence and adjusted odds ratios of specific MEB among US children overall and by their SR and SHR and RHR status.**

Children's Common MEB Conditions	Prevalence Among all US Children, Ages 3–17 y	Prevalence by child's SR status <sup>a</sup>		Prevalence by child's SHR and RHR status <sup>b,c</sup>			
		Consistently Demonstrated Good SR	Did Not Consistently Demonstrate Good SR	Both SHR and RHR	SHR Only	RHR Only	Neither
Experiences any MEB <sup>c</sup>	21.8%	12.6%	39.8%	39.5%	23.1%	21.6%	15.1%
<i>Adjusted odds ratios</i>		Ref	4.32 (4.04–4.63)	3.63 (3.29–4.00)	1.70 (1.51–1.91)	1.56 (1.44–1.69)	Ref
<b>Specific MEB</b>							
Depression	3.4%	1.5%	7.2%	9.8%	2.4%	3.7%	1.2%
<i>Adjusted odds ratios</i>		Ref	5.12 (4.41–5.94)	9.17 (7.64–11.00)	2.11 (1.67–2.68)	3.29 (2.78–3.88)	Ref
Anxiety	7.8%	3.8%	15.6%	17.0%	7.1%	7.8%	4.6%
<i>Adjusted odds ratios</i>		Ref	4.64 (4.21–5.12)	5.30 (4.69–5.99)	1.88 (1.62–2.18)	1.97 (1.77–2.18)	Ref
Conduct/Behavior disorder	7.0%	1.8%	17.1%	17.8%	5.9%	7.9%	2.8%
<i>Adjusted odds ratios</i>		Ref	9.93 (8.76–11.26)	6.93 (5.87–8.18)	2.03 (1.68–2.46)	2.94 (2.52–3.42)	Ref
Attention-deficit disorder or ADHD	8.7%	3.9%	18.2%	16.5%	8.6%	9.4%	5.7%
<i>Adjusted odds ratios</i>		Ref	5.00 (4.57–5.47)	3.13 (2.75–3.55)	1.57 (1.35–1.84)	1.72 (1.53–1.93)	Ref
Learning disability	6.9%	3.3%	13.9%	14.5%	7.9%	6.9%	3.8%
<i>Adjusted odds ratios</i>		Ref	4.15 (3.70–4.65)	3.27 (2.82–3.79)	1.87 (1.54–2.27)	1.60 (1.39–1.84)	Ref
Child meets criteria for having a special health care need that involves any type of MEB requiring treatment or counseling	9.7%	3.5%	21.8%	22.3%	9.2%	11.0%	4.5%
<i>Adjusted odds ratios</i>		Ref	4.73 (4.23–5.29)	3.87 (3.29–4.55)	1.51 (1.25–1.83)	2.76 (2.41–3.17)	Ref

Data for ages 3–17 years unless otherwise noted.

<sup>a</sup> Indicates that all observed differences in the prevalence of specific MEB conditions by child's SR status are statistically significant at the *P* value less than .001 level of significance and all adjusted odds ratios are also significant.

<sup>b</sup> Indicates that all differences in the prevalence of specific MEB conditions between children with or without MEB vary significantly by child's SHR and/or RHR status at the *P* value less than .001 level of significance and all adjusted odds ratios are also significant.

<sup>c</sup> See Fig. 1 for further details on MEB prevalence by SHR and RHR status. aORs are adjusted for child's age, sex, race-ethnicity, household income level, and insurance status/type.

Table 3

Variations in the prevalence of school-related outcomes among children aged 6–17 years with MEB who do or do not consistently demonstrate good SR<sup>a</sup>, for all children and by their social and relational risk status

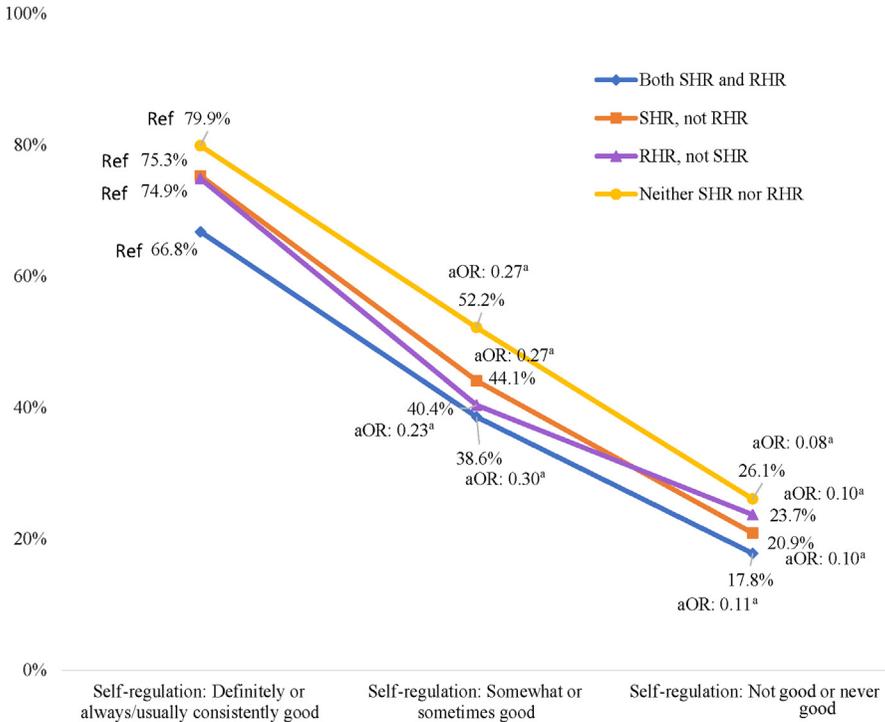
	Prevalence of Outcomes for all Children Ages 6–17 y with MEB		Prevalence of Outcomes by the SHR and RHR Status (Among Children Ages 6–17 y with MEB)							
			Both SHR and RHR		SHR, Not RHR		RHR, Not SHR		Neither SHR nor RHR	
	%	aOR	%	aOR	%	aOR	%	aOR	%	aOR
Prevalence of children who consistently demonstrated good SR, ages 6–17 y	38.1%	NA	28.3%	NA	38.3%	NA	33.6%	NA	50.4%	NA
Prevalence of children with MEB who engaged in school, 6–17 y										
Consistently demonstrated good SR	74.7%	Ref	66.8%	Ref	75.3%	Ref	74.9%	Ref	79.9%	Ref
Did not consistently demonstrate good SR	39.1%	0.23 (0.20–0.26)	32.4%	0.24 (0.18–0.32)	40.0%	0.24 (0.15–0.37)	36.7%	0.20 (0.15–0.26)	49.3%	0.24 (0.19–0.29)
Prevalence among children with MEB who missed 2 wk or more school days, 6–17 y										
Consistently demonstrated good SR	7.2%	Ref	13.3%	Ref	9.0%	Ref	6.7%	Ref	4.1%	Ref
Did not consistently demonstrate good SR	11.1%	1.60 (1.29–1.97)	15.5%	1.24 (0.86–1.79)	13.4%	1.64 (0.84–3.19)	9.9%	1.71 (1.22–2.39)	4.6%	1.21 (0.85–1.72)
Prevalence of children with MEB who experienced victimization and/or perpetration of bullying, 6–17 y										
Consistently demonstrated good SR	53.0%	Ref	66.8%	Ref	60.6%	Ref	46.9%	Ref	46.7%	Ref
Did not consistently demonstrate good SR	61.5%	1.37 (1.21–1.54)	71.8%	1.27 (0.96–1.67)	55.6%	0.83 (0.57–1.21)	59.6%	1.71 (1.35–2.16)	51.4%	1.16 (0.98–1.37)

<sup>a</sup> SR categorized into 2 groups because of sample size limitations.

Table 4

Prevalence of US children ages 3–17 years with MEB who with good SR, by their family resilience and parent-child connection status

	Prevalence of Children with MEB Who Consistently Demonstrated Good SR		Prevalence of Children with MEB Who Demonstrated Good SR by Their SHR and RHR Status							
			Among Children with MEB Experiencing Both SHR and RHR		Among Children with MEB Experiencing SHR, But Not RHR		Among Children with MEB Experiencing RHR, But Not SHR		Among Children with MEB Experiencing Neither SHR nor RHR	
	%	aOR	%	aOR	%	aOR	%	aOR	%	aOR
All children with MEB	38.1%	N/A	28.3%	0.45 (0.38–0.53)	38.3%	0.66 (0.54–0.81)	33.6%	0.53 (0.46–0.61)	50.4%	Ref
FRI score: (4 items-family talks, problem solves, maintains hope, recognizes strengths)										
0–1	32.2%	Ref	24.7%	Ref	35.3%	Ref	27.2%	Ref	46.0%	Ref
2–3	39.6%	1.44 (1.24–1.67)	28.0%	1.28 (0.90–1.81)	34.1%	1.03 (0.65–1.64)	37.8%	1.83 (1.36–2.44)	52.3%	1.31 (1.07–1.59)
All 4	46.8%	1.99 (1.73–2.28)	38.1%	2.03 (1.47–2.81)	45.3%	1.77 (1.11–2.81)	43.5%	2.23 (1.72–2.90)	54.5%	1.53 (1.27–1.84)
Parent-Child connection, ages 6–17 y: Parent-child share ideas and talk about things that really matter										
Very well	46.5%	5.73 (4.54–7.23)	35.7%	4.75 (3.07–7.35)	44.9%	10.04 (4.52–22.30)	42.8%	6.24 (4.42–8.81)	55.7%	3.44 (2.16–5.49)
Somewhat well	29.5%	2.68 (2.11–3.42)	23.6%	2.49 (1.57–3.94)	28.6%	4.59 (2.00–10.52)	26.5%	2.82 (1.96–4.05)	38.8%	1.70 (1.06–2.74)
Not very well, at all	12.8%	Ref	11.4%	Ref	7.0%	Ref	11.2%	Ref	25.1%	Ref
Detailed findings by specific FRI measures illustrating variations in associations with SR by “All of the time” vs. “Most of the time” responses to FRI items										
Family knows they have strengths to draw on when the family faces problems										
All of the time	44.7%	2.26 (1.85–2.76)	34.7%	1.78 (1.24–2.54)	42.7%	1.56 (0.73–3.31)	40.7%	2.49 (1.88–3.30)	54.1%	2.10 (1.52–2.92)
Most of the time	35.2%	1.46 (1.20–1.78)	25.6%	1.13 (0.80–1.59)	34.4%	0.99 (0.47–2.10)	30.3%	1.53 (1.17–2.00)	47.5%	1.56 (1.12–2.18)
None/some of the time	25.7%	Ref	23.9%	Ref	30.5%	Ref	22.3%	Ref	36.8%	Ref
Family stays hopeful even in difficult times when the family faces problems										
All of the time	43.9%	2.39 (1.87–3.05)	33.4%	1.80 (1.19–2.70)	42.4%	2.39 (1.21–4.72)	40.7%	2.57 (1.80–3.66)	54.0%	1.89 (1.17–3.06)
Most of the time	34.2%	1.40 (1.10–1.77)	24.7%	1.05 (0.72–1.53)	34.9%	1.42 (0.71–2.82)	28.5%	1.29 (0.91–1.83)	46.7%	1.31 (0.81–2.12)
None/some of the time	26.0%	Ref	25.1%	Ref	25.5%	Ref	22.9%	Ref	40.8%	Ref



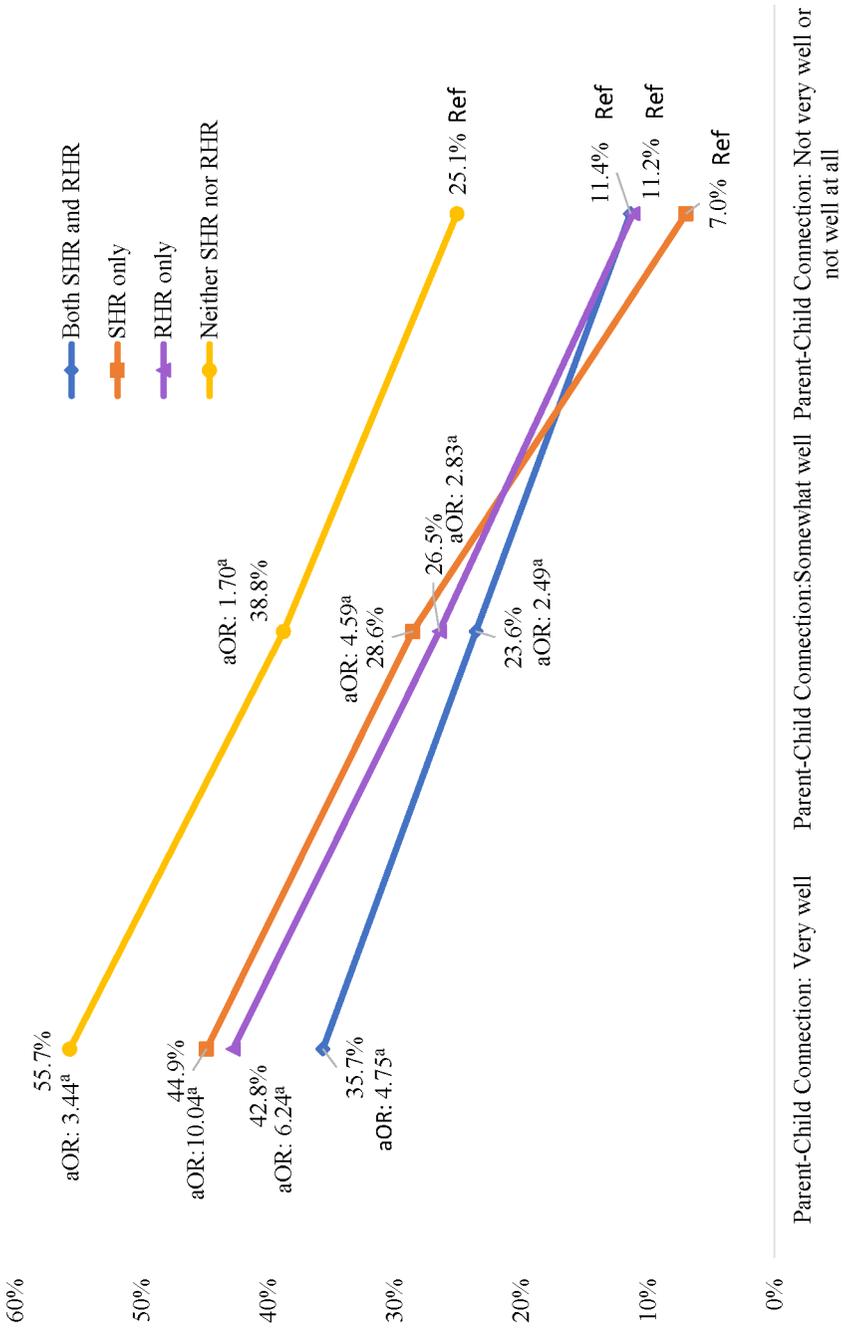
**Fig. 2.** Prevalence of US children age 6 to 17 years with MEB who were engaged in school by their SR and social and relational risk status. Notes. All prevalence rates are weighted to represent the US child population ages 3 to 17 years. aORs are adjusted for age, sex, race/ethnicity, income and insurance coverage type. <sup>a</sup>aORs are statistically significant after adjusting for age, sex, race/ethnicity, income and insurance coverage type. See [Technical Appendix D1](#) for regression details associated with this figure.

in [Fig. 3](#), across all SHR/RHR subgroups, the aORs that a child would more consistently demonstrate good SR skills were 3.44 to 10.04 times greater for children with stronger PCC compared to those with poorer PCC. In turn, better SR is associated with improved school-related outcomes as noted earlier.

Notably, the prevalence of children with MEB whose families consistently practiced resilience skills was generally lower than for those without MEB (29.4% vs 38.7%,  $P < .001$ ), but was not high for either group (see [Table 1](#)). Variation in this prevalence across the 4 SHR/RHR subgroups of children with MEB ranged from 22.7% to 35.9% ( $P < .001$ ). The prevalence of children with MEB who experienced stronger PCC showed wider variation across SHR/RHR subgroups (40.6%–60.0%,  $P < .001$ ). The aORs that a child experienced stronger PCC were 18% lower for children with SHR only, 48% lower for those with RHR only, and 55% lower for those with both SHR and RHR compared to children experiencing neither type of risk. See [Appendix E1](#) for further details.

**LIMITATIONS**

This study has several limitations. First, analyses used cross-sectional data, preventing confirmation of causal relationships between US children’s social and relational risks, protective family factors, and study outcomes. Yet, the NSCH provides



Parent-Child Connection: Very well    Somewhat well    Parent-Child Connection: Not very well or not well at all

important population-based information and measurement generalizability that generate epidemiologic insights which are not feasible to do longitudinally on such a large scale. Second, findings may underestimate the prevalence of children experiencing social and/or RHR because: (1) measures represented higher levels of risk (eg, children with 2+ ACEs); and (2) positive caregiver reporting bias may lower prevalence of risks.<sup>54,57</sup> Third, measures of SR and PCC each rely on a single item. Findings might vary if additional measures of these constructs were included. We hypothesize that adding additional indicators would strengthen associations found in this study, especially for the “missed school” and “bullying victimization and/or perpetration” outcomes where associations with SR by SHR and RHR were weaker, suggesting it may be important to examine other aspects of SR related to internalizing versus externalizing reactions to social and relational stress for children.

## DISCUSSION

This study documents a 21.8% prevalence of MEB among US children that varies 4-fold, from 15.1% to 60.4%, based on the SHR and/or RHR children experience (see [Fig. 1](#)). Over two-thirds (67.6%) of US children with MEB experienced one or more of the evidence-based social and/or RHR evaluated. This prevalence is notable given that study SHR and RHR indices identified children with serious, rather than minimal, risks. Children with MEB and any SHR and/or RHR were less likely to demonstrate SR skills and engage in school and were more likely to both miss more than 2 weeks of school in a year and have been a victim and/or perpetrator of bullying at school. Offering hope, children with MEB were more likely to demonstrate good SR skills if their family reported consistently practicing resilience skills and had a stronger PCC. These protective factors are malleable and can be promoted using evidence-based strategies.<sup>14,66–68</sup> As we show here, doing so is expected to also increase school engagement and reduce missed school days and bullying victimization and perpetration among children with MEB.

Understanding the full population prevalence of the SHR and RHR associated with MEB is important for determining whether to advance high-risk versus population-wide efforts to assess and reduce these risks among US children, ideally before they manifest as symptoms that may lead to an MEB diagnosis. In this study, we found that nearly half of US children without MEB also experienced SHR and/or RHR (49.3%) and that RHR were the most common type of risk for children whether they had MEB or not. Similarly, associations found between improved SR and improved school engagement for children with MEB across all SHR or RHR subgroups were also found for children without MEB (see [Appendix C1](#)). These results suggest that population-wide efforts are needed to both assess and reduce RHR, along with SHR, and to promote SR and positive mental health among all US children and their families.

Although evaluated at a national level here, findings can be generated for all US states with the combined years NSCH data used in this study. State-level findings

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**Fig. 3.** Prevalence of US children ages 6 to 17 years who demonstrate SR (“definitely true” or “always/usually”), by their parent-child connection status (how well share/what really matters) and their social and RHR status. Data: 2016 to 2019 National Survey of Children’s Health. Notes. All prevalence rates are weighted to represent the US child population ages 6 to 17 years. aORs are adjusted for age, sex, race/ethnicity, income and insurance coverage type. <sup>a</sup>aORs are statistically significant after adjusting for age, sex, race/ethnicity, income and insurance coverage type. See [Table 4](#) for confidence intervals for aORs.

can inform efforts like the current Integrated Care for Kids (InCK) state demonstrations<sup>69</sup> on the use of approaches to pay for health services for children taking into account SDOH.<sup>70</sup> Our findings support these and related efforts to promote a whole-child, whole-family assessment of both SHR and RHR, as well as strengths (SR, family resilience, PCC) experienced by children and families. Doing so can better inform the specification of prevention, diagnostic and treatment strategies to ensure that these efforts address the root causes of child mental health problems, like the toxic stress and trauma that can arise with the RHR and SHR evaluated here.<sup>6</sup> InCK and other related government and private sector children's health care (including mental health) payment innovations increasingly focus on implementing "value-based care."<sup>71,72</sup> This study suggests that these types of payment reforms must reflect the fact that most children and youth with MEB also experience SHR and RHR and may require different and more complex, cross-agency and integrated community-based approaches to promote positive outcomes.<sup>73,74</sup>

Findings also urge the continued scaling of family-centered, primary care medical homes that integrate mental health promotion and treatment capacities<sup>6,75</sup> and embrace the profound importance of children's social and relational environments, including child's/family's relationship with their health care teams.<sup>6,26,76</sup> Child health professionals are essential to help families learn and practice resilience skills and establish and maintain safe and strong nurturing connections with their children. This study demonstrates that doing so will improve SR and school and social outcomes even among children with MEB with higher levels of SHR and RHR. Promoting family, parenting, and child strengths even amid adversity requires multigenerational approaches that gain the trust and engagement of families as well as skills to build healing partnerships that nurture family protective factors.<sup>6,75-79</sup> This may result in a greater sense of positive impact among child health professionals and, in turn, lead to much needed improvements in their joy and satisfaction in their work.<sup>78</sup>

Investments are required to build the knowledge, skills, and capacity of child mental health and primary care professionals as well as school and other community-based professionals who must work together to promote positive mental health for children.<sup>5,6,74</sup> It is especially important to disseminate information across all child-serving professionals and agencies about approaches to (1) increase PCC and family resilience; (2) recognize and improve children's SR and other resiliency skills; and (3) implement evidence-based clinical and public health approaches to prevent, mitigate impacts of and heal developmental trauma. Doing so will require shifting focus away from diagnosis of discrete child mental health symptoms to a primary focus on promoting positive relational health within the lives of children and development of their social and emotional skills.<sup>6,26</sup> Science is strong that when relational health is compromised or undeveloped, children can experience a myriad of symptoms associated with common mental health diagnoses. For instance, the symptom of dissociation is a symptom associated with many children mental health problems, like depression, anxiety, and ADHD. Recognition that this symptom can be an adaptive coping response to relational poverty and/or abuse in the home will shift the focus to assessing and promoting relational health in the family and helping children heal and restore connection to their sensations and emotions and develop social and emotional skills needed to restore their functioning. Similarly, many children exposed to toxic stress and trauma related to the SHR and RHR they experience may adapt and cope by presenting as "normal" and even highly resilient, when in fact they have physiologic and more nuanced mental health symptoms indicative of toxic stress. These children also require support to promote their relational health in the family and to reduce sources of

social stress that can also contribute to these RHR, like food insecurity and unsafe neighborhoods.<sup>80</sup>

Empowering communities to identify the risks, needs, priorities and strengths of their children, families, and young people is critical to ensure that both clinical and public health strategies are culturally appropriate and aligned with community values and priorities. Communities that Care (CTC) and Promoting School-University Partnerships to Enhance Resilience (PROSPER) are examples of community-engaged strategies in which researchers provide guidance to community coalitions in conducting assessments, identifying key risk and protective factors for youth in the community, and implementing evidence-based prevention programs at the school, family, and community levels to address youth issues prioritized by the community. CTC and PROSPER have each produced positive and sustained effects on youth health and well-being.<sup>81–86</sup> Few US communities, however, are currently engaged in these types of prevention initiatives. Widespread engagement of community stakeholders, including youth themselves, to identify locally relevant SHR and RHR and protective factors and implement evidence-informed interventions has potential to shift youth outcomes at a population level.

This study adds to the growing empirical evidence demonstrating that social and relational contexts are critical drivers of child mental health and functioning. We cannot hope to heal the large numbers of mental health challenges our children are experiencing and promote positive mental health with only a disease-oriented focus on treatment and addressing individual-level etiologic factors. Rather, a public health lens and social-ecological frame are needed to guide broad-based promotion, prevention, and treatment strategies that proactively support positive child and family mental health for all children and address root causes of child mental health problems when they occur. Such a preventative, healing-centered, and trauma-informed approach holds great promise to improve the health of children in the United States and the adults they will become.<sup>6,14,26,87</sup>

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Robert Wood Johnson Foundation, grant #75448 to Johns Hopkins Bloomberg School of Public Health (PI: Bethell).

## DISCLOSURE

The authors have nothing to disclose.

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