MAY 2014

5GHS

FIFTH GRADE HEALTH SURVEY

CHILD & ADOLESCENT HEALTH SURVEILLANCE

Bullying Among Children with Health Conditions

Introduction

Bullying has become an issue of paramount importance to parents and professionals alike. It is estimated that five million children in the United States are bullied on a yearly basis.[1] Research predicts poor outcomes for the targeted victims of peer aggression, such that they tend to have lower self-esteem than those who are not bullied; they have a greater propensity to develop depression and/or anxiety than their peers, who are not bullied; and they may begin to manifest psychosomatic symptoms, such as stomachaches and headaches. Moreover, these effects can follow an individual into adulthood, creating long-term stress and feelings of isolation. The effects are often heightened, as the bullying typically occurs multiple times over a long period of time. Additionally, the prevalence of bullying is likely underestimated as children often report that they did not tell an adult either at home or at school, as they felt that the adult would not be effective in stopping the bullying behavior.[2]

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Research shows that bullying reaches pivotal levels between grades five through nine.

Bullying is more prevalent among children with disabilities or chronic health conditions.

Over 41.8% of parents/guardians reported that their fifth grader had been bullied during the 12 months before the survey.

Among racial/ethnic groups, whites reported a higher rate of bullying at 46.5% with Hispanics at 30.8%.

While bullying can begin as young as three years of age, research demonstrates that it reaches pivotal levels between grades five through nine. It has been postulated that one bullies to increase his or her social status. However, children with physical, developmental, intellectual, emotional, and sensory disabilities are at a disadvantage concerning social status; therefore they are more likely to be the targets of bullying as a result of their condition. Research suggests that some children with disabilities, such as attention deficit hyperactivity disorder (ADHD), were more likely than other children to be bullied and were more likely than others to bully their peers.[3,4]

In Oklahoma, as in the United States, children with disabilities and chronic health conditions have been integrated into the mainstream of the education system. Research has shown that inclusion has not had a positive impact on those children with special health care needs but actually coincides with negative attitudes toward those children and disabilities.[5] Such studies also have indicated that the social skills of children with chronic health conditions, who are mainstreamed, tend to deteriorate throughout their school years, as they may experience frequent, social exclusion and not be accepted by some of their peers. Moreover, the additional stress of social exclusion and lack of acceptance may only serve to exacerbate their symptoms, particularly for those with behavioral problems or mental health diagnoses. A lack of understanding, education, and the stigma placed on mental health diagnoses and behavioral conditions may function to increase these attitudes, particularly since adults can intervene by modeling appropriate behaviors and attitudes.

The purpose of this study was to assess the prevalence of bullying among public school fifth graders in Oklahoma and if being a victim of bullying was more prevalent among children with chronic health conditions than children without chronic health conditions.

Methods

This study used data from the Fifth Grade Health Survey (5GHS). The 2011 5GHS was a random sample of fifth grade classrooms from around the state. Classrooms were selected with probability proportional to size. Among the participating classrooms, 1,359 of 2,013 parents completed the survey. The overall response rate, which is the product of the classroom participation rate and the parent response rate, was 61.3%. These weighted data are representative of all statewide public school fifth graders.

Health conditions were determined based on responses to the following question: *"Has a health care provider ever said your fifth grader has any of the following conditions? A health care provider can include: general doctor; pediatrician; specialist; physician's assistant; emergency room doctor; or nurse practitioner."* The following response options were available for selection: asthma, diabetes, poor hearing, learning disability, Attention Deficit Disorder or Attention Deficit Hyperactivity Disorder, speech or language delays, poor eye sight, tooth decay or cavities, and behavior or conduct problems.

Bullying status was determined using the following question: *"Has your fifth grader been bullied by others in the past 12 months? Bullying can be physical, mental, or emotional. It is repeated actions or gestures that have the intent to harass, harm, or humiliate another person."* The response options for

this question were yes, no, and I don't know. Due to the intent of this analysis, which was examining the relationship of bullying and having a chronic health condition, responses of I don't know were excluded from the analysis.

Due to the complex survey design and weighted sample, SAS 9.2 was used to perform the analysis. SAS *PROC SURVEYFREQ* was used to generate descriptive statistics and to perform bivariate analysis. SAS *PROC SURVEYLOGISTIC* was used to perform multivariable analysis. Variables were examined using percentages and 95% confidence intervals. The Chi-square test was used to test for differences in proportions. Logistic regression was used to produce adjusted odds ratios (AOR) as measures of association between selected independent variables and risk indicators. Variables were considered statistically significant at $p<0.05$.

Although perceived weight was not a variable of interest, it was controlled for as a covariate in the multivariable model due to its association with being bullied.[6] Perceived weight status was determined by asking parents if they considered their fifth grader to be: 1) very underweight, 2) underweight, 3) about the right weight, 4) overweight, or 5) very overweight. In the multivariable model, about the right weight was the reference group, while underweight and very underweight were combined and overweight and very overweight were combined.

Results

Overall, 41.8% of parents/guardians reported that their fifth grader had been bullied during the 12 months before the survey (Table 1). Significant differences were observed among racial/ethnic groups for the prevalence of bullying with whites reporting a higher rate of bullying at 46.5% than Hispanics at 30.8%. No differences were observed for bullying by gender.

When asked if a health care provider had said their fifth grader had any health conditions, tooth decay was the most prevalent health condition reported with more than one in five fifth graders (23.3%) reporting the condition. This was closely followed by asthma (19.1%) and poor eyesight at 17.8%. One in ten fifth graders was reported to have Attention Deficit Disorder or Attention Deficit Hyperactivity Disorder (ADD/ADHD). Other conditions of lower prevalence were speech or language delays (5.7%), learning disability (4.3%), behavioral problems (3.9%), and poor hearing (3.0%). Data for diabetes were removed due to small numbers.

When assessing the prevalence of being a victim of bullying by health condition status, significant differences were observed (Figure 1). Fifth graders with asthma were significantly more likely to have been bullied on school property in the past year compared to fifth graders without asthma at 52.1% and 39.4%, respectively. Statistically significant associations also were observed between bullying and having ADD/ADHD, behavioral problems, and speech problems.

Table 1. Bullying Among Public School Fifth Graders in the Past 12 Months (5GHS 2011)

	n[1]	% (CI)[2]	p value
Total	486	41.8 (37.7-45.9)	
Gender			
boy	235	44.5 (38.6-50.5)	
girl	251	39.1 (37.1-49.9)	0.0924
Race/ethnicity[3]			
hispanic	45	30.8 (21.7-39.9)	
Native American	62	42.1 (33.6-50.7)	
multiple race	65	36.8 (28.3-45.3)	
white	283	46.5 (42.5-50.4)	0.0179

1 unweighted frequency
2 weighted percent and 95% confidence interval
3 data for blacks, Asians, and Pacific Islanders were not shown due to small numbers

Multivariate logistic regression analysis was used to assess the risk of being bullied among those students who were reported to have a chronic health condition while adjusting for covariates such as gender, race/ethnicity, and perceived weight status (Table 2). All but one of the health conditions, behavioral problems, retained a statistically significant association with being bullied.

Table 2. Adjusted Odds Ratios for the Associations of Being Bullied with Having a Health Condition (5GHS 2011)

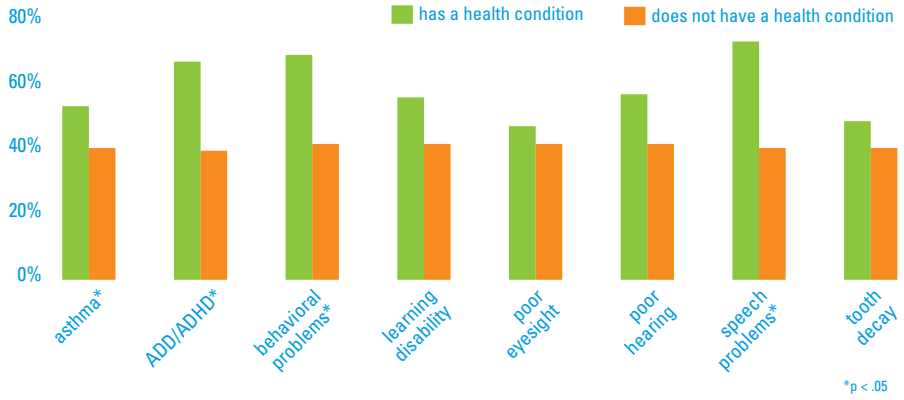
	AOR[1]	CI[2]
Health Condition		
asthma	1.73	(1.16-2.57)
ADD/ADHD	2.05	(1.17-3.58)
behavioral problems	1.96	(0.86-4.45)
speech problems	2.61	(1.32-5.16)

1 AOR - Adjusted Odds Ratios controlling for gender, race/ethnicity, and perceived weight status
2 CI- 95% Confidence Interval

Discussion

The results of this study indicate that children with chronic health conditions were significantly more likely than children without chronic health conditions to be victims of bullying. As previous studies have demonstrated, children with behavioral difficulties, speech impairments, and ADD/ADHD tend to experience more bullying and bully others more than children with other types of diagnosed conditions or those without any diagnosed conditions.[6] Lack of appropriate communication skills and social skills can account for the majority of those

Figure 1. Bullying by Health Condition Status (5GHS 2011)



who fall into any of the three categories previously mentioned. Studies also suggest that the less severe the impairment, or higher functioning the child is, the more likely the child is to be bullied and/or bully, as can be seen in cases of Asperger's Syndrome, which is an Autism Spectrum Disorder (ASD).[3] Those with Asperger's tend to be mainstreamed into the classroom, as their symptoms are not obvious until an older age, typically age eight or older. However, they display social isolation, eccentric behavior, difficulties in two-sided social interactions and non-verbal communication, clumsiness, and a circumscribed area of interest, making two-sided communication difficult, particularly for peers. These symptoms can lead to frustrations for the child which can lead to behavioral difficulties. This can in turn affect bullying of the child by his/her peers and potential bullying by the child, which can lead to further and heightened behavioral issues. While ASD's were not directly assessed in the survey, a child with Asperger's could easily fall into the behavioral problem category.

While children with chronic health conditions experienced increased risk of being bullied, it is important to note that nearly half (42.0%) of all students, not just those with chronic health conditions, reported to be victims of bullying. Further, bullying is shown to peak in grades five through nine, during a time when youth are entering adolescence and peers become particularly important.[2] These communication and social deficits complicate the process of "fitting in" with one's peers and assimilating to the group. Additionally, while society does not condone the mistreatment of those who are severely disabled, those with perceived minor differences often are not tolerated or understood as well. As bullying is environmental and must encompass an overall community level of approval, without appropriate interventions and preventive measures, the school environment can be perceived as unsafe and uncaring, which ironically, in turn, will affect the community's view of the school.

Limitations

Self-reported information may be inaccurate, as some behaviors may be under-reported and other behaviors may be over-reported. For instance, bullying is a complex issue, which many schools are open to interpret and provide consequences based on such interpretations. Oklahoma legislation requires schools to adopt bullying prevention policies. However, while schools are permitted to accept anonymous reports of bullying, no formal disciplinary action shall be taken solely on the basis of an anonymous report. Therefore, parents may not report or even know about bullying toward their child as a result of lack of school involvement in such matters due to the school's interpretation. Further, not all parents define bullying behaviors the same and may not feel as if their child had been a victim of bullying, despite their child's report of being bullied. In this study, 13.2% of parents/guardians responded "I don't know" when asked if their fifth grader had been bullied in the past year. Many times children will not report being the victim of bullying, as they fear what adults will think, that the adults will make the situation worse, or that they will be punished for being part of the altercation.

Additionally, while the question about health conditions asks if a health care provider has ever stated that their fifth grader had any of the following conditions, the question did not capture the severity of reported conditions. Moreover, as the perceived weight status question indicates, some questions on the survey were subjective. As there are various measurements and interpretations of weight, there is no standard followed by the surveyed parents and, therefore, is subject to the parent's interpretation.

Conclusions

It is imperative that schools adopt appropriate prevention and intervention methods for controlling bullying. This is best when paired with community and parental involvement in the process but many times begins at the school level. Research suggests

that it is best for schools not to adopt a zero-tolerance policy, as many times the student who has been repeatedly bullied typically is caught defending him or herself and is the one punished, thereby reinforcing the bullying.[2] While schools must become involved in investigating reported incidences of bullying, school personnel need to hear all sides, including bystanders, and must be diligent in obtaining all the information that is required to properly assess assignment of responsibility for those bullying, social skill building for the targets, and character education and modeling for the students. Additionally, many may believe that peer mediation is an appropriate measure; however, research shows that peer mediation only serves to worsen the bullying, as there is either an actual or perceived imbalance of power.

Simultaneously, schools can enact preventive measures through the modeling of appropriate behaviors and the use of Positive Youth Development (PYD).[7-9] Many schools discover that it is necessary to establish a baseline of bullying activity and an overall feeling of school safety from the students, staff, and parents. This can be accomplished through means of surveying all three groups for baseline and re-surveying periodically in set timeframes. A confidential comment box, which remains locked and available only to certain staff, is another way schools can investigate reported incidences of bullying.

Finally, many children who are diagnosed with a disability or assessed to be developmentally delayed will have an Individualized Education Plan (IEP). Behavioral interventions can be written into the IEP as part of the plan; this may be a necessity for some students. While these measures may not completely eliminate bullying, they will help to decrease incidences of such behaviors and create a safer, more stable environment for all the youth in the school.

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