The Journal of the Oklahoma State Medical Association

REVIEW

The Dynamics of School Bullying : A Review Article

Dhaval Parikh, MD; Courtney Nixon, MD; Swapna Despande, MD

ABSTRACT

Objectives: The act of school bullying has far-reaching consequences for the youth of today. We sought to convey how the actions of bullying behavior affect the emotional and physical health of children by reviewing up to date and current articles that studied bullying behavior. From this information, we wanted to involve primary care physicians on how to recognize and ask questions related to school bullying.

Methodology: A literature review was performed from well known journals. Specific articles with case control and cohort studies were chosen to help assess psychiatric and physical manifestations of bullying behavior, in the school setting, for the bully and the victim.

Results: The research suggests that victims of bullying have higher incidences of somatic complaints. However, the bully and victim groups both had higher incidences of psychological manifestations, including anxiety, depression, and suicidal thoughts. The effects of bullying at an early age can persist long past childhood and adolescence into adulthood.

Conclusions: Evidence-based literature was researched to conclude that bullying is a significant problem for children and teenagers, from a psychological, emotional, and physical perspective. A team approach, involving parents, teachers, primary care physicians, and mental health professionals must be utilized to help the youth of the next generation overcome this public health crisis.

INTRODUCTION

On May 13, 2010, in the town of Perkins, Oklahoma, an eleven year-old boy, Ty Fields, committed suicide by gunfire. The boy's family said that he had been bullied by another child for the entire school year, and that "he was tired of fighting it."[1] Over the course of the past few years, the media has begun to cover stories about how school bullying has directly led to teen and pre-teen suicides across the nation. One such story that received national attention involved Phoebe Prince, a 15 year old South Hadley High School teenager, in South Hadley, Massachusetts, who committed suicide on January 14, 2010, after months of unrelenting bullying and abuse from her peers.[2] Another tragic account of suicide as the result of bullying was that of Rutgers University freshman, Tyler Clementi, who committed suicide by jumping off the George Washington bridge after a recording of him having a sexual encounter with a man was broadcast online by his roommate.[3] These are just three examples, among a large number of suicides that are precipitated by school bullying each year, and they all have one thing in common: the potential of being preventable.

As a young child enters the school-age years, he or she begins a journey filled with the anxiety of learning mathematics, the sciences, and history. This journey includes forming long-term relationships with peers and significant adults in addition to family, and understanding the social interactions that promote healthy relationships. This journey can also lead to the unintended consequence of forming a social hierarchy, even amongst pre-teens. This social hierarchy presents a situation in which those students who are on top (e.g. those with increased popularity, more friends), have the potential of abuse over those who are below them (e.g. social outcasts, those who tend to isolate).[4] The adolescent population today faces new challenges and adversities in the school setting that were less prevalent in previous generations of students.

Bullying can be defined as antagonism or hostility, in which the actions of one individual, who has more power, are intended to harm that of another individual, with less power; additionally, this behavior must occur multiple times over an undefined period of time. With the advent of Facebook, Twitter, and text messaging, the potential to attack another individual without physical or verbal contact now exists; this is called cyber-bullying.[5] In addition to cyber bullying, the more classical forms of bullying include verbal (e.g. name-calling or threats), physical (e.g. bodily harm), and psychological (e.g. avoidance, exclusion).[4,5]

Bullying and being bullied have been acknowledged as health problems for children due to their association with depression, suicide, future violent behavior, and overall poor mental health. Research into school bullying has shown consistently that bullies, victims of bullying behavior, and those who fall into both categories (bully-victims), are compromised in psychological functioning.[4] Physicians, counselors, teachers, and parents all have responsibility to ensure the proper nurture and growth of today's children. Therefore, understanding how bullying behavior and victimization can lead to psychosomatic, psychological, and social problems in children is necessary to identify and develop preventative measures that can be instituted in the primary care practice and the public school system.

Primary care physicians, in particular, are in a position to identify these children as they are the first line providers for pediatric healthcare. Parents generally turn to their family practice

Correspondence to: Dhaval Parikh, MD, 7703 Floyd Curl Drive, MC 7792 San Antonio, TX 78229, Phone: 210-567-5475, Fax: 210-567-5677, Email: parikhd@uthscsa.edu

physician or pediatrician first with any concerns about their child's physical or mental health. Furthermore, primary care physicians generally see their child and adolescent patients relatively frequently, with well child exams, sick visits, and sports physicals being fairly numerous in this population. The purpose of this review article is two-fold: to investigate the prevalence and consequences of school bullying in all of its forms: physical, verbal, relational, and cyber, and secondly, to help primary care physicians who manage the well-being of children to screen for and evaluate those children who are bullies or are being bullied.

KEY PLAYERS

Primary care physicians must be able to identify specific characteristics that comprise a bully, a victim, and a bully-victim in order to further triage these patients to prevent the consequences of involvement in bullying behavior.

The Bully

A school-aged child does not suddenly wake up one day and claim his right to emotionally taunt and physically abuse his peers. For many, this is a learned behavior that starts in the home, for children who are witnesses to physical and verbal altercations among parents or other family members. Bullies may be physically stronger than their victims, show little regard for the feelings of others, and have difficulty following the rules set forth by authority.[6,7]

In a study conducted by *Juvonen et al.*, bullies reported the lowest prevalence of depression, anxiety, and loneliness; they were psychologically superior in this regard to their victim and bully-victim counterparts.[4] They also held the highest social status among their peers.[5] *Lyznicki et al.* references the fact that in a study of US students from the 6th to the 10th grade, bullies were five times more likely to carry weapons than those children who did not engage in such behavior. These same individuals were found to be at a higher risk for failing in their studies and eventually dropping out of school, as well. **Table 1** describes those common characteristics of children who bully other children.[7]

Table 1. Possible personal attributes of the bully

Possible personal attributes of the bully
Impulsive and Irresponsible
Use intimidation for personal gain
Lack empathy for other peers
Show oppositional behavior towards adults
Possible conduct disorder and increased risk of antisocial behavior as adults
Physically strong
Find high risk behavior (drugs and alcohol) acceptable

The Victim

Although the victims of a school bully might not have a physical target on them, they are nonetheless singled out by their victimizers. **Table 2** describes those characteristics that could cause a student to be singled-out. In the same study by *Juvonen et al,* 9% of the responders to the questionnaires reported that they were the victims of bullying, and these individuals were found to hold a lower social status when compared to the bully population.[4]

Table 2. Possible personal attributes of the victim

Possible personal attributes of the victim
Shy and insecure
Poor self-esteem
Lack of social skills
Physical attributes (overweight, physically small, having a disability)
Pre-existing depressive or anxiety disorder
Appear to be defenseless
Pre-existing medical conditions
Different sexual orientation than peers

Because of the nature of chronic victimization, the children who have to endure such hardship are left socially ostracized and emotionally scarred, which could be manifested by psychological (depression, suicidal thoughts) and psychosomatic disorders. Their academic performance suffers, as well. Those students who are victims of bullying were 60% more likely to bring a weapon to school for protection purposes, and when they did engage in physical altercation, were 30% more likely to be injured than their bully counterparts. Long-term consequences for these individuals portrays an often-times bleak outlook for their emotional well-being, and therefore, the key remains to address the problem at the root level.[7]

The Bully-Victim

Those children who are both perpetrators of bullying and who have bullied others are called bully-victims. These children exhibit characteristics seen in both **Tables 1 and 2**: they are like victims with increased depression, low self-esteem, and feel rejected by their peers and they are like the bullies, in that they are dominant, aggressive, and impulsive towards others.[7] Juvonen et al. found that bully-victims were the most socially isolated and thus, least connected with their peers. They were also found to have high rates of conduct problems and the highest levels of depression and anxiety when compared to the bullies and victims, individually.[4]

A REVIEW OF THE LITERATURE

Not only does this generation of teens and pre-teens have to deal with teachers, parents, and maintaining good grades, but they also have to deal with the challenge of being accepted by their peers. This challenge of acceptance can be difficult for

those children who have difficulty forming friendships due to poor self-esteem, physical or emotional limitations, and those who are going through a time of finding their sexual identity. Such so-called ‘weaknesses’ can be easily spotted by peers, and easily exploited in the form of bullying.

A review of 5 articles was conducted and results are summarized on **Table 3**.

Table 3. A review of articles relating to school bullying (continued on next page)

Author	Type of Study	The Participants	Methodology of Study	Results	Conclusions
Fekkes, et al[8]	Cohort	18 elementary schools in the Netherlands. Age of participants: 9-11 years. Total number of participants: 1118.	6-month cohort study Olweus-Bully/Victim questionnaire, measuring psychosomatic/ psychosocial symptoms Depression scale using Short Depression Inventory for Children given at time 0 and then 6 months later.	**Not bullied vs. Bullied children (in %)** Depression: 2.1 vs. 7.9 Abdominal Pain: 3.9 vs. 9.4 Poor appetite: 7.2 vs. 15 Anxiety: 6.3 vs. 19.3 Bedwetting: 0.7% vs. 4.7 Children with depression at time 0 were bullied at a rate of 29.2% versus those without depression (10.2%)	Psychosomatic health problems become evident following episodes of bullying and victimization. Children with depressive symptoms and anxiety are also at increased risk of being victimized themselves. Health professionals need to screen for bullying
Juvonen et al.[4]	Case Control	11 public schools in the Los Angeles area, mostly in low socioeconomic status. Participants were all enrolled in the 6th grade. Total number of participants: 1985.	Study performed with 3 questionnaires: self, peer, and teacher reports Peer evaluation was unique to this study; each student was allowed to provide confidential information about his or her classmates.	Bullies: 7%, Victims: 9%, and bully-victims: 6% Bullies reported the lowest rate of depression, anxiety, and loneliness; victims reported the highest. Bullies experienced the highest social status on both peer and teacher-rated questionnaires. Bully-victims were rated as having highest rates of conduct problems.	ullies were psychologically stronger and enjoyed a high social status. Victims suffered high emotional distress and a low social status. Bully-victims were the most socially isolated, and had high conduct problems. Teachers need to lessen the “coolness” factor placed upon bullies.

Table 3. A review of articles relating to school bullying (continued from previous page)

Author	Type of Study	The Participants	Methodology of Study	Results	Conclusions
Klomek et al.[9]	Case Control	6 New York State Public High Schools from 2002 - 2004. Participants ranged from ages 13-19 years. Total number of participants: 2342.	Participants filled out - demographics questionnaire -depression (Beck Inventory) - suicidal ideation (SI) (SI questionnaire), suicide attempt (SA) history - bullying behavior (WHO Study on Youth Health questionnaire).	Aprox 6.5% of students reported to be frequent (>1/wk) victims and 8.0% to be frequent (>1/wk) bullies in school. Victims - Depression 29.5%, SI 11.5%, SA 10.8% Bullies - Depression 18.6%, SI 7.6%, SA 8.2%	Study found that rates of depression, suicidal ideation, and suicide attempts were higher in the victim population; however, the bullying population also had significant rates of each, as well. Among girls, victimization at any frequency resulted in high rates of depression, SI, and SA.
Wang et al.[5]	Cohort	A total of 7,508 adolescents, grades 6-10, were involved in the 2005-2006 Health Behavior in School-Aged Children study in the United States.	Self-report data Olweus Bully/Victim Questionnaire (physical, verbal, and relational bullying). Study also included cyber bullying The family affluence scale was used to measure SES. Parental support was measured from the Parental Bonding Instrument.	In the past 2 months: 13.3% reported they had bullied others physically. 37.4% bullied verbally. 27.2% bullied socially. 8.3% bullied electronically. Victimization rates were: 12.8% physical 36.5% verbal 41.0% relational 9.8% cyber	Adolescents with higher parental support reported less involvement in all four forms of bullying. Having more friends was associated with more bullying and less victimization in the three all forms of bullying, except cyber bullying. Boys engage in more physical and verbal bullying and girls in more social bullying.
Sourander et al.[10]	Cohort	2,540 Finnish males, all born in 1981. Information about bullying and victimization was gathered in 1989, when the children were 8 years old.	Study performed with 3 questionnaires on bullying: self, parent, and teacher reports when child was 8 years old; Parents and teachers also completed a Rutter scale for children's emotional and behavioral problems. The Finnish national military call up registry was used to obtain information about psychiatric disorders when the subjects were ages 18-23. ICD-10 diagnoses were used.	Among the 8 year old boys, 6% were frequently bullies only, 6% were frequently victims only 3% were bully victims. At the time of follow-up: 30% of the bully-victim group, 18% of the bully-only group, and 17% of the victim-only group had a psychiatric disorder (antisocial personality disorder, substance use, anxiety, depression, and psychotic disorder).	The long-term outcome of children who bully or are victimized is significantly worse than that of children who have a high level of psychiatric symptoms but do not bully and are not victimized. Children who display frequent bullying behavior should be evaluated for psychiatric problems, because bullying and being bullied may be early markers of risk of psychiatric disorders.

DO BULLIED CHILDREN GET PHYSICALLY ILL?

The research suggests that psychosomatic health problems are more prevalent in those children who are being bullied, when compared to their non-bullied peers. These bullied children show higher rates of somatic complaints, including abdominal pain, poor appetite, and bedwetting.[8] This has significant implications for the overall public health system and the treatment of these children by primary care physicians. For example, chronic stress from bullying may put children involved in bullying at medical complications. Furthermore, this can have implications for the child's education, as psychosomatic complaints are a common cause of missed school.

IS THERE A RELATIONSHIP BETWEEN BULLYING BEHAVIOR AND MOOD AND ANXIETY SYMPTOMS?

Multiple studies have consistently shown that the victims of bullying behavior do manifest increased rates of depression and anxiety. Mood symptoms were also shown to be found in the bully population as well. [8,9,10] Children with pre-existing symptoms of depression or anxiety are more likely to be bullied than their non-depressed and non-anxious counterparts.8 Children who fall into the category of bully-victims are very socially isolated and have a high incidence of conduct problems.[4]

WHAT ARE THE SHORT-TERM AND LONG-TERM EFFECTS OF BULLYING BEHAVIOR?

The short term effects of bullying behavior, as described above, include depression, anxiety, social isolation, and conduct problems. Additionally, bullied children have higher rates of suicidal ideation and suicide attempts, when compared to the non-bullied population.[4,9] This problem seems to be especially true in the female adolescent population.[9] The effects of bullying can persist long past childhood and adolescence into adulthood. The mental health outcome of children who bully or are victims of bullying is significantly worse than that of children who have psychiatric symptoms but are not involved in bullying.10 Additionally, bullies and victims with psychiatric symptoms have the highest risk of developing psychiatric disorders later in life.[10]

RECOMMENDATIONS

A review of the literature shows that bullying is a significant problem facing today's youth. Bullied children have a higher incidence of psychosomatic complaints, and of mood and anxiety symptoms. Additionally, bullied children are at higher risk for suicide attempts and completed suicide. Furthermore, children involved in bullying in childhood and adolescence are at higher risk for developing psychiatric disorders later in life. Thus, children involved in bullying behavior must be identified early to prevent these devastating consequences.

Essential to the identification, screening, and treatment/referral of adolescents who bully or are bullied, are the primary care physicians. Children who present to their primary care physician with psychosomatic complaints, such as frequent belly pain or headaches, may be involved in some type of bullying behavior, and thus, these children warrant further screening. Furthermore, children with symptoms of depression or anxiety are also at higher risk of being bullied, and they could also benefit from additional screening for bullying.[8]

Another group of children who may warrant further screenings for bullying behavior are those who have a lower social status at school than their peers.[4] During office visits, primary care physicians should ask children and adolescents about their involvement, either positive or negative, in and with cliques in their schools. Furthermore, children and adolescents with less parental support are at higher risk of involvement in bullying behavior.[5] Thus, asking children about their home lives and relationship with parents is also important in identifying children involved in bullying behavior. Adolescence can be a confusing time for most students, as they try to find an identity. For those who are still trying to identify with a specific sexual orientation, the task gets compounded. Children who are homosexual may be at a higher risk of verbal and physical taunting. Although none of the literature that has been presented in this review article addresses homosexuality, this must also be considered by the primary care physician. Along the same viewpoint, children with physical disabilities and developmental delays can easily be taken advantage of in a school setting, and must be screen appropriately by the primary care physician. **Table 4** is a chart documenting characteristics of at-risk children who warrant further screening.

Table 4. Characteristics of Children at Risk for Involvement in Bullying

Psychosomatic health complaints
Depressive or anxiety symptoms
Lower social status at school
Lower parental support
Homosexual/bisexual orientation
Physical disabilities or differences (e.g. obesity)
Developmental delays, learning disabilities, or mental retardation

So what can be done about this grave problem plaguing today's youth? The process begins with clinical interviewing. Most likely, a child will see his or her pediatrician or family practice doctor before seeing a specialist, such as a child psychiatrist. Therefore, it is absolutely critical that the primary care physician be actively involved in this screening process, to help identify at-risk children. The entire goal of such a screening process is to help ensure the betterment of children's mental health. **Table 5** presents a list of screening questions to help identify bullies or victims of bullying.[7] If a child seems reluctant to answer questions, or the primary care physician is suspicious of bullying behavior (whether the child is a victim or the instigator), then the parents of the children can also be questioned **(Table 6)**.[7]

Table 5. Screening Questions for Primary Care Physicians and Pediatricians to ask children

1. Have you ever been teased (or have you teased others) at school?
2. If child has been teased, who was teasing him/her and why?
3. What do you do when others pick on you?
4. Have you ever told your teacher or other adult? What happened?
5. Do you know of other children who have been bullied?
6. Have you pushed, kicked, punched another student, or have you been a victim of such behavior?
7. Do other classmates make fun of your sexual orientation (specifically targeted towards teenagers)?
8. Have rumors about you get spread in school or have you spread rumors about others?
9. Do you feel safe in the classroom? Hallway? Gym locker room? School bus?
10. How many friends do you have? Do you wish you had more?

If bullying or victimization is suspected based upon these initial screening procedures and a thorough mental status examination, the primary care physician must intervene by referral to child mental health services in the community or at school. These children may benefit from referral to a child psychiatrist or licensed professional counselor with whom the primary care physician works, based on the severity of symptoms.

Another point of intervention has to be the public school system. Studies have shown bullies enjoy a higher social status among their peers. One of the biggest positive reinforcements for the bully is his or her peer support. The bully may not act alone, but may spearhead a gang of his peers to show a source of intimidation against the victim. The peer group could be responsible for raising the bully's status in the school, which provides positive reinforcement to attack other children. Therefore, one of the keys in bullying prevention is not only to talk to the bully himself or herself, but rather to get through to those inactive participants who raise the status of the bully or those who witness the bullying but otherwise do not report the actions to authority. Teacher involvement in lessening the "coolness factor" placed upon bullies will also help.[4] Parental involvement is also protective against bullying.[5] Wang *et. al.* also introduces the term: "Friendship protection hypothesis." This hypothesis says that those children who have other friends are less likely to be bullied, probably due to the fact that they have higher self-esteem, a lower prevalence of pre-existing depression, and are not viewed by others as defenseless.[5] Using this hypothesis, the school system has the foundation to create an environment where friendship is a key to bully prevention.

Table 6. Screening Questions for Primary Care Physicians and Pediatricians to ask parents

1. Are you concerned that your child is having problems with other children at school?
2. Has your child's teacher ever mentioned that your child is often by himself or herself at school?
3. Do you suspect that your child is being harassed or bullied at school for any reason? If so, why?
4. Does your child visit the school nurse frequently?
5. Has your child ever said that other children were bothering him or her?

CONCLUSION

In conclusion, children involved in bullying, both on the bully and victim viewpoint, had a higher incidence of somatic complaints, depression, suicidal ideation, and suicide attempts.8,9 Bullying is a significant problem for children and teenagers worldwide. To fight this battle and protect our youth, a 360 approach must be implemented. In this approach, a team effort including parents, teachers, primary care physicians/ pediatricians, and mental health professionals, must be utilized to help the youth of the next generation. Primary care physicians must be an integral part of any school based bullying prevention program, and mental health services must be offered in the school to screen for bullying behavior and comorbid psychiatric problems. The over-reaching goal of this paper is to present evidence based literature on the seriousness of school bullying, to help in the implementation of screening tools for use by primary care physicians, and to stimulate new ideas of bullying prevention, so that tragedies like Ty Field, Phoebe Prince, and Tyler Clementi can be prevented.

ACKNOWLEDGEMENTS

We would like to acknowledge our mentors, Dr. Betty Pfefferbaum and Dr. Jim Allen for their recommendations and most importantly, their support in writing this paper.

REFERENCES

1. Baker M. Parents try to help after Perkins boy's suicide; family says bullying was a factor. *NewsOK*. June 20, 2010. http://newsok.com/parents-try-to-help-after-perkins-boys-suicide-family-says-bullying-was-a-factor/article/3469763
2. Eckholm E, Zezima K. 6 Teenagers are Charged After Classmate's Suicide. *New York Times Online*. March 29, 2010. http://www.nytimes.com/2010/03/30/us/30bully.html?pagewanted=all
3. Tyler Clementi Suicide Sparks Outrage, Remorse. *CBS News Online*. September 2010. http://www.cbsnews.com/stories/2010/09/30/national/main6914293.shtml
4. Juvonen J, Graham S, Schuster MA. Bullying Among Young Adolescents: The Strong, the Weak, and the Troubled. *Pediatrics*. 2003; 112: 1231-1237.
5. Wang J, Iannotti RJ, Nansel TR. School Bullying Among Adolescents in the United States: Physical, Verbal, Relational, and Cyber. *J of Adol Health*. 2009; 45: 368-375.
6. Nansel TR, Overpeck M, Pilla RS, Ruan WJ, Simons-Morton B, Scheidt P. Bullying Behaviors Among US Youth: Prevalence and Association with Psychosocial Adjustment. *JAMA*. 2001; 285: 2094-2100.
7. Lyznicki JM, McCaffree MA, Robinowitz CB. Childhood Bullying: Implications for Physicians. *Am Fam Physician*. 2004; 70: 1723-1728
8. Fekkes M, Pijpers F, Fredriks MA, Verloove-Vanhorick TV, Verloove-Vanhorick SP. Do Bullied Children Get Ill, or Do Ill Children Get Bullied? A Prospective Cohort Study on the Relationship Between Bullying and Health-Related Symptoms. *Pediatrics*. 2006; 117: 1568-1574.
9. Klomek AB, Marrocco F, Kleinman M, Schonfeld IS, Gould M. Bullying, Depression, and Suicidality in Adolescents. *J. Am. Acad. Child Adolesc. Psychiatry*. 2007; 46: 40-49.
10. Sourander A, Jensen P, Ronning JA, Niemela S, Helenius H, Sillanmaki L, Kumpulainen K, Piha J, Tamminen T, Moilanen I, Almqvist F. What is the Early Adulthood Outcome of Boys Who Bully or Are Bullied in Childhood? The Finnish "From a Boy to a Man" Study. *Pediatrics*. 2007; 120: 397-404

Since 1983, the Oklahoma Health Professionals Program (OHPP) has provided services to over 800 physicians and health care providers with alcohol and chemical dependence. OHPP is an outreach program designed to support and monitor medical and allied health professionals throughout Oklahoma who are experiencing difficulty with substance abuse.

The OHPP continues to be a leader nationally in identifying problems, assisting in treatment, and returning to practice physicians who have suffered from substance abuse or dependency.

OHPP services are confidential and are provided at no cost. Services include expert consultation and intervention designed to encourage physicians to seek help for substance abuse and behavioral concerns.

When an individual contacts the OHPP about a physician or about himself or herself, the director or designated associate director assesses the situation and assists in guiding the physician.

Participation with OHPP is voluntary and confidential. OHPP will strongly urge a professional who is ill to get help, and although OHPP does not provide direct treatment, we will suggest specific treatment options. We respond to the concerns of families, colleagues, and hospitals by providing coordinated interventions and referrals to treatment.

In addition, OHPP hosts a number of support group meetings open to all professionals, medical students, residents in recovery as well as those seeking peer support.

OHPP recognizes the difficulty of reporting a colleague who may be impaired. Because of the potential risk to patient care, OHPP encourages medical professionals to make referrals if a problem exists, no matter how long there has been a problem.

Call the 24-Hour Confidential Hotline
(405) 427-4391
Confidential Fax: (405) 605-0394
Lanny Anderson, MD - Director