

Trauma experience of youngsters and Teens: A key issue in suicidal behavior among victims of bullying?

Farhat Shireen¹, Himani Janapana², Sanila Rehmatullah³, Hoor Temuri⁴, Fatima Azim⁵

ABSTRACT

This study examines the association between suicide and bullying among teenagers and adolescents in school besides exploring strategies to prevent acts of bullying. "Bullying" is a risk factor that is linked to suicidal ideation and attempts among school-age children and teenagers. Since youth suicide is an urgent and serious problem, we conducted a systematic review of 28 previous studies conducted in children and adolescents which examined the connection between bullying experiences and suicide.

Data Collection: A literature search was carried out using 4 databases, without date description including: PubMed, PsychInfo, Medline and Google Scholar. The search terms contained: bullying, suicide and bullying, suicide in teens, school bullying, and peer victimization. An initial search generated about 97 articles; however, only 28 articles were appropriate for inclusion in the current review. Inclusion criteria was (1) Cross-sectional studies published from 1997-2013. (2) Study based on school bullying and suicidal risk in adolescents and teens 18 years or less (3) Studies had enough information to calculate effect sizes that did include a control group. (4) Studies based on gender discrimination. Papers that focused on specific populations, that did not include quantitative data, that did not use a control group of non-bullied subjects and studies based on cyber bullying, studies with longitudinal design were excluded.

The risk of suicide attempts was higher in girls, who were involved in bullying, either as the victim or perpetrator, than in boys. Depression, feelings of hopelessness and loneliness can develop in the child after being bullied for long periods of time; these feelings are indirectly related to suicidal ideation and attempts. Involvement in bullying increases the likelihood of suicidal ideation and attempts in children and teenagers.

KEY WORDS: School bullying, Suicide, Teens.

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INTRODUCTION

Suicide is the third leading cause of death for people aged 15-24 in the USA.¹ Teen suicide is not only a tragic global public health problem affecting young people. The surviving family members and friends live emotionally devastated lives after losing their loved one. Approximately 1 in 6 high school students has seriously considered suicide, and 1 in 12 has attempted it.¹ Moreover, suicide rates among teens have been increasing for the last couple of years; from 6.3% in 2009, to 7.8% in 2011; and more youth suicides have been reported as a result of bullying.² Furthermore, evidence indicates a strong association between bullying and suicide,

as suggested by recent bullying-related suicide deaths.¹

SCHOOL BULLYING

School bullying is a type of bullying that occurs in connection with education, whether inside or outside of school. Bullying can be physical, verbal, or social and is usually repeated over a period of time. Physical bullying includes hitting, kicking, and beating up, pushing, spitting, property damage, and/or theft. Verbal bullying includes teasing, mocking, name-calling, verbal humiliation/intimidation, threats, cruelty, extortion, and/or racist, sexist or homophobic taunts. Social bullying includes gossip, rumor spreading, embarrassment, alienation or exclusion from the group, and using the Internet, email or text messaging to threaten.¹ Studies demonstrate that bullies are aggressive children.¹ They see violence as the right way to interact with other children.² They are insecure youth who believe that other children will harm them, so they fight to defend themselves, and also try to show that they're strong. A lot of bullies are characterized by impulsive behavior.^{1,2}

Data Associated with Bullying in School

Some of the effect of bullying that have been observed are: (1) It is estimated that 160,000 children skip school every day because of fear of attack or intimidation by other students (2) Ninety percent of 4th through 8th graders report being victims of bullying. (3) 1 in 7 students in Grades K-12 is either a bully or a victim of bullying.¹ Bullying statistics show that revenge is the strongest motivation for school shootings, and that harassment and bullying have been linked to 75% of school-shooting incidents.² Eighty-seven percent of students said shootings are motivated by a desire to "get back at those who have hurt them".²

DISCUSSION

According to the CDC, a national youth risk behavior survey showed that more than 1,700 adolescents aged 15-19 completed suicides each year.^{2,3} In 2009, the percentage of high school students who attempted suicide one or more times during the 12-month period was 6.3%, of which 8.1% were female and 4.6% were male.^{1,3} According to studies by Yale University, victims of bullying

Table-I: Different studies on suicide in adolescents.

<i>Study Country</i>	<i>Population Studied/age group</i>
1- Rivers I, 2010. UK	2,002, 12 to 16 years boys & girls
2- Barker ED, 2008. UK	3,932, 14 to 16 years boys & girls
3- Wolke D, 2001, UK	2377 children 6-8 years boys& girls
4- Arseneault L, 2006, UK	2232 children, 5 and 7 years boys & girls
5- Rivers I, 2013, North England	1,009, high school boys & girls
6- Luukkonen AH, 2009, Finland	508 adolescents 12-17 years boys & girls
7- Brunner R, 2007, Germany	5759, 9-grade, boys & girls.
8- Baldry AC, 2003, Italy	998 adolescents, 8 to 13 years boys & girls
9- Rigby K, 1999, South Australia	845 secondary school, 12-16 boys & girls
10- Shaikh A M, 2013. Pakistan	4676, class 8-10, 14-16 boys & girls
11- McMahon EM, Ireland 2012	1870, adolescents boys only
12- Emmanuel R, 2007, Uganda	Uganda Global School-Based Health Survey, adolescent
13- Skapinakis P, 2011 Greece	5614, 16-18 years boys & girls
14- Owusu A, west Africa 2011	7137 student high school
15- Cui S, 2011, China,	8778, adolescents boys & girls
16- Kim YS, 2009, Korea	6,043, 4 and 10 years boys & girls
17- Park HS, 2006, Korea	1300 high school boys & girls
18- Kim YS, 2005, Korea	1718, 7 and 8 grade, boys & girls.
19- Hepburn L, 2012, USA	1,838 youth in 9th-12th grade, boys & girls.
20- Klomek AB, 2011, USA	96, 13 through 18 years boys & girls.
21- Klomek AB, 2007 USA	2342, 9_12th grade boys & girls.
22- Patrick DL, 2013, USA	27,752, 8, 10, and 12 grades boys & girls
23- Bauman S, 2013 USA	1491 high school students, boys & girls.
24- Abdirahman, H.A Caribbean 2012	6780, middle school age, boys and girls.
25- LeVasseur MT, 2009 USA	2009 Youth survey, boys & girls
26- Hanley AJ, 2011 USA	448, 4-5 grade, 10-12 years boys & girls
27- Klomek AB 2008, Finland	2348 boys born in 1981.
28- Van der, 2003, Netherlands.	4811 children, aged 9 to 13 boys & girls

are between 2 to 9 times more likely to consider suicide than non-victims.¹ Suicide is the third leading cause of death for people aged 15-24 in the United States.¹ A semi-annual survey on youth risk behavior by the Centers for Disease Control (CDC) in 2012 uncovered that approximately 1 in 6 high school students has seriously considered suicide, and 1 in 12 has attempted it.² Furthermore, evidence indicates a strong association between bullying and suicide, as suggested by recent bullying-related suicide deaths.¹ The more frequently a child is bullied, the more overwhelming it becomes. When a child becomes depressed, feelings of loneliness and sadness overcome them. They lose interest in activities, they blame themselves for every bad thing that happens around them, and they think life is not worth living. Some youth express their depression through violence and aggression, and at this point, they can become vulnerable to suicidal or destructive thoughts. As a result, most adolescent suicide attempts are caused by interpersonal conflicts. The intent of the behavior appears to be to effect change in the behaviors or attitudes of others. Therefore, the most important thing for the youth when he/she becomes suicidal is to get professional help immediately, because the suicidal feelings can be very robust.

Link between Bullying and Suicide attempt and ideation in Cross-sectional studies

Bullying and risk of self-harm

These cross-sectional studies have determined that victims of bullying express high levels of suicidal ideation, and the risk of attempted suicide is high as compared to non-victims.⁴⁻⁶ The association of being bullying to suicidal ideation/suicide attempts is not only limited to students who were bullied but also reported by the bullies.^{5,6} These children have experienced rejection and are not popular among their peers, and develop early personality problems.⁷ Suicidal ideation and behavior may represent an attempt at reducing intolerable emotional states among these children and adolescents.⁸ However students who were both victim and perpetrators of bullying were at highest risk for both suicidal ideation and suicide attempt^{4,11} as compared with adolescents who were bullied but not involved in bullying behavior. One study reported that children who have multiple roles in bullying behavior such as, victim, bully, and bystander (Children who witnessed bullying, but they did not report it. These children may have feelings of discomfort about their behavior)

were significantly more likely to report having had thoughts of ending their life.⁶

Bullying affects on mental health

Studies indicated that bullies/victims are at risk for suicidal ideation because of increased risk of mental health problems.¹²⁻¹⁵ These risks may be attributable to the development of intensified emotional arousal and poor impulse control.^{16,17} Findings also demonstrated the relationship between suicidal behaviors, bullying victimization experiences and depression which facilitate the association between bullying/victimization and suicide attempts.¹⁸ A recent study conducted in Pakistan revealed the effects of sleep patterns in bullied victims and how it further leads them towards serious considerations of attempting suicide.¹⁹ The study also discovered that children who are lonely and have insomnia were twice as likely to report suicidal ideation. In contrast to bullied children who do not have insomnia or feel lonely, these children were bullied within the past thirty days. Age and sex were not found to be statistically significant.¹⁹ Over time, victimization increased the probability of involvement in bullying as compared to bullying increased the likelihood of victimization.¹⁰ When symptoms of depression were controlled, suicidal ideation occurred most often among adolescents who were bullies.¹⁰

The intent of the behavior appears to be to effect change in the behaviors or attitudes of others. Therefore, the most important thing for the youth when he/she becomes suicidal is to get professional help immediately, because the suicidal feelings can be very robust. H. A. Abdirahman and colleagues in Caribbean studies found a strong association between bullying and poor mental health. They highlight the urgent need to develop useful approaches for reducing bullying among children and adolescents.²⁰ Brunner and colleagues reported an indirect effect of bullying towards suicide. Their data suggest that there is a link present between bullying and deliberate self-harm (DSH). If the DSH behavior continues a strong association develops between DSH and suicidal behavior.²¹ Bullying has both direct and indirect effects on the suicide ideation and attempts. For example, a very important negative outcome of victimization may be increased risk of suicide attempt and death due to increasing feeling of hopelessness in the child.²² Evidence showed that verbal victimization was associated with an increased risk of developing hopelessness in elementary school children.²² Furthermore, studies revealed that problems in peer

relationships are positively associated with suicide ideation and attempts, and that feelings of loneliness would increase the association.^{4,23} Evidence also showed that helplessness is significantly linked with possible suicide ideation among youth who observe bullying at school.²⁴

Dose-response relation

Various researchers described a dose-response relation¹³ between victimization and suicidal ideation and attempt. The more frequent the exposure to bullying the higher the risk of the child developing these thoughts and ideation.¹³

Bullying and Gender

Various studies have reported association between victims of bullying and suicidal ideation and suicidal attempt when age, race/ethnicity, and gender were controlled for. Another aspect that was uncovered is the link between gender and school bullying as a risk for suicidal ideation. For example, it has been found that while the prevalence of suicidal ideation may be different. When an Irish study by McMahon et al examined the prevalence of bullying in Irish adolescent boys, they found that the odds ratio of lifetime self-harm was four times higher for boys who had been bullied than boys without this experience.²⁵ Among girls, being bullied or bullying others are both potential impulsive risk factors for suicidal behavior. After adjusting for age, school factors, family factors and psychiatric disorders, there was a higher risk of suicide attempts in girls who were victims of bullying (OR=2.07, CI=1.04-4.11, p=0.037) or who bullied others (OR=3.27, CI=1.08-9.95, p=0.037).²⁶

However, various studies find different effect of gender. A high prevalence of victimization was reported in an Italian school survey, and their regressions model showed the importance of child gender and age. They found that older girls were more at risk of suicidal ideation than either younger girls or boys.¹² Barker and fellows further mentioned that the highest prevalence of bullies and bullying-victims was found among mid age adolescents. These youth have high/increasing bullying and high/increasing victimization trajectories.¹⁰ One study has found that older adolescents have a higher risk for exhibiting suicidal ideation.²⁷

Similarly, Kim and Luukkonena et al. found that females who were involved with school bullying as victim or perpetrator were at greater risk for suicide.^{5,26} Van der Wal and Park et al.^{28,29} described that girls have a strong association between being bullied and suicidal ideation.²⁹ Similarly, depression facilitated the association between bullying/

victimization and suicide attempts, but differently for males and females. A few studies showed that depression mediated the link between traditional bullying and suicide attempts for female only.¹⁸ Van der et al. discovered that the experience of being bullied has common outcomes of suicidal ideation among both boys and girls. These associations were greater for indirect than direct bullying. They further clarified that direct bullying had a substantial influence on depression and suicidal ideation in girls, but not in boys.²⁸ Conversely, Rigby and Slee stated that the connection between being a bully and suicidal ideation applied to boy only.³⁰

Bullying and Sexual preferences

Patrick and his colleague analyzed data from the 2010 Washington State Healthy Youth Survey collected in public school grades 8, 10, and 12 and their results found that children were being bullied more due to their sexual preferences.³¹ They discovered that 29% of male students and 27% of female students in these three grades were reported being bullied because of personal sexual preferences.^{31,32} The survey also revealed lower quality of life (QOL) scores associated with increased odds of depressed mood or consideration of suicide.^{26,31} By the same token another secondary data analysis of the 2009 New York City Youth Risk Behavior Survey used logistic regression to study the link between sexual identity, gender, ethnicity, bullying and suicide attempts. The outcome of bullying on suicide attempt was greatest among non-Hispanic sexual minority male youths (odds ratio = 21.39 vs. 1.65-3.38).³¹

Future long-term, prospective studies are needed to elucidate the causality between bullying and suicide as well as the differential effects of gender on the association. Media plays a very significant role in covering and broadcasting suicide related teenage deaths. For example, if teenage suicide gets under reported, for good reason, there will be less risk of glorifying the behavior and less risk of clusters of suicidal behavior. Another positive media contribution can be to educate the public and to point out the seriousness of bullying and its related consequences.

School bullying is a major public health problem that demands the thoughtful attention of school systems, teachers, health care providers, policy makers, and families. School systems can collaborate with teachers, parents, students and the community to deal with bullying problems in their school, and come up with ways to respond to it effectively.

SUGGESTIONS

One of the most effective suicide prevention strategies for youth is to provide awareness and educate students, parents, school officials, community members and peers on how to identify suicidal signs. This includes teaching them how to effectively respond to suicidal behavior, and how to provide support. It is important to provide a safe environment in school and at home. To ensure this safety, parents can encourage children to openly discuss their school-related problems, including their peer relationships. Studies have showed that 50-75% of children and youth who have been bullied have not informed their school. Some have told one of the parents, yet many remain silent. Therefore addressing bullying with frequent anti-bullying campaigns is likely to result in a substantial reduction in the suicide rate among students.

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REFERENCES

- Center for Disease Control and Prevention: (National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS™): 2012. <http://www.cdc.gov/injury/wisqars/index.html>. Accessed 5 May 2013.
- Eaton DK, Kann L, Kinchen S, Shanklin S, Ross J, Hawkins J, et al. Youth Risk Behavior Surveillance – United States, 2009. Surveillance Summaries. 2010;59(SS05):1-142.
- National Suicide Statistics at a Glance: Suicide Rates Among Persons Ages 10-24 Years, by Race/Ethnicity and Sex, United States, 2005-2009. <http://www.cdc.gov/violenceprevention/suicide/statistics/rates03.html>. Accessed 7 May 2013.
- Cui S, Cheng Y, Xu Z, Chen D, Wang Y. Peer relationships and suicide ideation and attempts among Chinese adolescents. Child Care Health Dev. 2011; 37(5): 692-702. Doi: 10.1111/j.1365-2214.2010.01181.x.
- Kim YS, Koh YJ, Leventhal B. School bullying and suicidal risk in Korean middle school students. Pediatrics. 2005 Feb; 115(2): 357-63. PubMed PMID: 15687445.
- Rivers I, Noret N. Participant roles in bullying behavior and their association with thoughts of ending one's life. Crisis. 2010; 31(3): 143-148. Doi: 10.1027/0227-5910/a000020.
- Mynard H, Joseph S. Bully/victim problems and their association with Eysenck's personality dimensions in 8 to 13-year-olds. Br J Educ Psychol. 2007; 67:51-54.
- Zlotnik C, Donaldson D, Spirito A et al. Affect regulation and suicide attempts in adolescent inpatients. J Am Acad Child Adolesc Psychiatry. 1997; 36:793-798.
- Klomek AB, Marrocco F, Kleinman M, Schonfeld IS, Gould S. Bullying, Depression, and Suicidality in Adolescents. J Am Acad Child Adolesc Psychiatry. 2007; 46(1): 40-49. doi: 10.1097/01.chi.0000242237.84925.18
- Barker ED, Arseneault L, Brendgen M, Fontaine N, Maughan B. Joint development of bullying and victimization in adolescence: relations to delinquency and self-harm. J Am Acad Child Adolesc Psychiatry. 2008; 47(9): 1030-1038. Doi: 10.1097/CHI.ObO13e31817e9c98. PubMed PMID: 18665001.
- Hepburn L, Azrael D, Molnar B, Miller M. Bullying and suicidal behaviors among urban high school youth. J Adolesc Health. 2012 Jul; 51(1): 93-5. Doi: 10.1016/j.jadohealth.2011.12.014. Epub 2012 Mar 3. PubMed PMID: 22727083
- Baldry AC, Winkel FW. Direct and vicarious victimization at school and at home as risk factors for suicidal cognition among Italian adolescents. J Adolesc. 2003; 26(6): 703-716.
- Klomek AB, Kleinman M, Altschuler E, Marrocco F, Amakawa L, Gould MS. High school bullying as a risk for later depression and suicidality. Suicide and Life-Threatening Behav. 2011; 41:501-516.
- Kim YS, Leventhal BL, Yun-Joo K, Boyce WT. Bullying increased suicide risk: prospective study of Korean adolescents. Arch Suicide Res. 2009; 13:15-30.
- Owusu A, Hart P, Oliver B, Kang M. The association between bullying and Psychological health among senior high school students in Ghana, West Africa. J Sch Health. 2011 May; 81(5): 231-8. doi: 10.1111/j.1746-1561.2011.00590.x. PubMed PMID: 21517861
- Arseneault LE, Walsh E, Trzesniewski K, Newcombe R, Caspi A, Moffitt TE. Bullying victimization uniquely contributes to adjustment problems in young children: a nationally representative cohort study. Pediatrics. 2006; 118:130-138
- Wolke D, Woods S, Schulz H. Bullying and victimization of primary school children in England and Germany: prevalence and school factors. Br J Psychiatry. 2001; 92:673-696.
- Bauman S, Toomey RB, Walker JL. Associations among bullying, cyber bullying, and suicide in high school students. J Adolesc. 2013; 36(2): 341-350. Doi: 10.1016/j.jadohealth.2012.12.001.
- Shaikh AM. Bullying victimization among school-attending adolescents in Pakistan Bullying victimization among school-attending adolescents in Pakistan. J Pak Med Assoc. 2013; Vol. 63, No. 9 <http://jpm.org.pk/PdfDownload/4649.pdf>
- Abdirahman, H.A., Bah, T.T., Shrestha, H.L., & Jacobsen, K.H: Bullying, mental health, and parental involvement among adolescents in the Caribbean. West Indian Medical Journal 2012, 61(5), 504-508.
- Brunner R, Parzer P, Haffner J, Steen R, Roos J, Klett M, Resch F. Prevalence and psychological correlates of occasional and repetitive deliberate self-harm in adolescents. Arch Pediatr Adolesc Med. 2007; 161(7): 641-649.
- Hanley AJ, Gibb BE. Verbal victimization and changes in hopelessness among elementary school children. J Clin Child Adolesc Psychol. 2011; 40(5):772-776. Doi: 10.1080/15374416.2011.597086
- Emmanuel R, Adamson S M, Seter S and Jeremiahs T-T. Suicidal ideation and associated factors among school-going adolescents in rural Uganda. BMC Psychiatry 2007; doi: 10.1186/1471-244X-7-67.
- Rivers J, Noret N. Potential suicide ideation and its association with observing bullying at school. J Adolesc Health. 2013 Jul; 53(1 Suppl): S32-6. doi: 10.1016/j.jadohealth.2012.10.279. PubMed PMID: 23790198.
- McMahon EM, Reulbach U, Keeley H, Perry IJ, Arensman E. Reprint of bullying victimisation, self harm and associated factors in Irish adolescent boys. Soc Sci Med. 2012 Feb; 74(4): 490-7. Doi: 10.1016/j.socscimed.2011.12.001. Epub 2011 Dec 7. PubMed PMID: 222272
- Luukkonen AH, Räsänen P, Hakko H, Riala K; STUDY-70 Workgroup. Bullying behavior is related to suicide attempts but not to self-mutilation among psychiatric inpatient adolescents. Psychopathology. 2009;42(2):131-138. Doi: 10.1159/000204764. Epub 2009 Feb 27. PubMed PMID: 19246957.
- Skapinakis P, Bellos S, Gkatsa T, Magklara K, Lewis G, Araya R, et al. The association between bullying and early stages of suicidal ideation in late adolescents in Greece. BMC Psychiatry. 2011; 11:22. Doi: 10.1186/1471-244X-11-22.
- Van der Wal MF, de Wit CA, Hirasings RA. Psychosocial health among young victims and offenders of direct and indirect bullying. Pediatrics. 2003; 111(6 Pt 1): 1312-1317.
- Park HS, Schepp KG, Jang EH, Koo HY. Predictors of suicidal ideation among high school students by gender in South Korea. J Sch Health. 2006 May; 76(5): 181-8. PubMed PMID: 16635202.
- Rigby K, Slee P. Suicidal ideation among adolescent school children, involvement in bully-victim problems, and perceived social support. Suicide Life Threat Behav. 1999; 29:119-130
- Patrick DL, Bell JE, Huang JY, Lazarakis NC, Edwards TC. Bullying and Quality of Life in Youths Perceived as Gay, Lesbian, or Bisexual in Washington State. Am J Public Health 2013. [Epub ahead of print] PubMed PMID: 23678925
- Levasseur MT, Kelvin EA, Grosskopf NA. Intersecting identities and the association between bullying and suicide attempt among New York City youths: results from the 2009 New York City youth risk behavior survey. Am J Public Health. 2013;103(6):1082-109. doi: 10.2105/AJPH.2012.300994.

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