

# British Journal of Education, Society & Behavioural Science

8(1): 1-8, 2015, Article no.BJESBS.2015.094 ISSN: 2278-0998



# **SCIENCEDOMAIN** international

www.sciencedomain.org

# The Nature and Prevalence of Bullying in Primary Schools of Nkayi South Circuit in Zimbabwe

Alfred Champion Ncube<sup>1</sup>, Augustine Zano Muranda<sup>2</sup>, Thembinkosi Tshabalala<sup>3</sup> and Tichaona Mapolisa<sup>3\*</sup>

<sup>1</sup>Zimbabwe Open University, Zimbabwe.

<sup>2</sup>Department of Teacher Development, Faculty of Arts and Education, Zimbabwe Open University, Zimbabwe.

<sup>3</sup>Department of Educational Studies, Faculty of Arts and Education, Zimbabwe Open University, Zimbabwe.

#### Authors' contributions

This work was carried out in collaboration between all authors. Author TT designed the study, wrote the protocol and supervised the work. Authors ACN and TM carried out all laboratories work and performed the statistical analysis. Author AZM managed the analyses of the study. Author ACN wrote the first draft of the manuscript. Author TM managed the literature searches and edited the manuscript. All authors read and approved the final manuscript.

#### Article Information

DOI: 10.9734/BJESBS/2015/14554

Editor(s):

(1) David A. Kinnunen, Department of Kinesiology, California State University Fresno, USA. Reviewers:

(1) Anonymous, Portugal.

(2) Diana Tapia, Division of Research and Graduate Studies, Faculty of Higher Studies Iztacala at National Autonomous University of Mexico, México.

Complete Peer review History: http://www.sciencedomain.org/review-history.php?iid=1065&id=21&aid=8585

Original Research Article

Received 5<sup>th</sup> October 2014 Accepted 21<sup>st</sup> November 2014 Published 25<sup>th</sup> March 2015

# **ABSTRACT**

The aim of the present study was to investigate the nature and prevalence of bullying among primary school pupils in Nkayi South Circuit in Matabeleland North Province in Western Zimbabwe. The population comprised of all the 300 teachers in Nkayi South Circuit. Random sampling was used to arrive at a sample of 30 teachers from ten schools. The study adopted the descriptive survey design and the questionnaire was used for collecting data. The main findings of the study revealed that the most common forms of bullying were physical (that is, fighting, punching, hitting), verbal (that is, threatening, swearing, teasing) social (that is, deliberately leaving out of a game or group, ignoring). The study also revealed that boys were the main contributors of bullying. The findings also revealed that the bullying behaviours were influenced by home based factors, peers

and school based factors. The study recommends that schools should encourage teachers to engage all children in productive work all the time and also liaise with parents on best ways of guiding the behaviour of pupils who exhibit characteristics of bullies.

Keywords: Bullying; prevalence; nature; primary school; circuit.

#### 1. INTRODUCTION

According to international research, bullying has been recognised as a worldwide problem and any school can anticipate the occurrence of bullying, albeit, with varying degrees of severity [1]. Numerous accounts of bullying behaviour among students in Zimbabwean schools have been reported. The most form of violence reported is physical abuse of weaker pupils by stronger pupils. A case in point (which demonstrates the extreme negative impacts of bullying) was carried by most newspapers in Zimbabwe where a secondary school pupil was beaten to death by fellow students who suspected that he had stolen their money [2]. For smaller children, the magnitude of the cases is lesser in severity than in bigger pupils, but as [3] argue, if bullying of small children is not controlled from the early stages, it may develop to unmanageable levels, and thus the need to nip it in the bud. It was on account of this information that this study set out to investigate the nature of bullying in the primary schools in Zimbabwe.

# 1.1 Statement of the Problem

Bullying in schools has remained pervasive and a concern for all stakeholders of education who desire to make schools safe places for children. Bullying has to be eradicated, particularly in the primary schools as it is at this stage that children develop bad habits that may affect their high school and adult life.

# 1.2 Purpose of the Study

The study sought to investigate the nature and prevalence of bullying among primary school pupils in order to unveil the negative effects of this antisocial phenomenon so as to help schools to come up with strategies of eroding the problem.

#### 1.3 Research Questions

- 1. What constitutes the phenomenon of bullying?
- Which of the sexes is likely to perpetrate bullying?

- 3. Which background is likely to be the source of bullying?
- 4. What remedies can be used to reduce bullying in schools?

# 1.4 Significance of the Study

The study's importance stemmed from the fact that it attempted to expose the various forms of bulling and their prevalence in schools in order to come up with strategies to minimise the negative impacts of bullying in schools. The researchers hoped to sensitise and conscientise school authorities about the need to be consistently alive to the prevalence of bullying in schools and the need to come up with policies that deliberately address this scourge.

# 1.5 Limitations of the Study

In view of the small size of the sample used, the findings of the study will have limited generalisability. The study employed the descriptive survey method which lacks predictive power.

# 1.6 Delimitation of the Study

The researchers delimited the study to the investigation of the nature and prevalence of bullying in Nkayi South Circuit Primary Schools using a sample of 30 respondents. Views from other stakeholders like heads of schools, parents, education officers and pupils were not used for this study.

# 1.7 Literature Review

Tattum et al. [4] view bullying as the wilful and conscious desire to hurt, threaten and frighten someone. Various epidemiological studies have found that bullying is more frequent among boys than among girls, and that boys are more likely to become bullies compared to girls [5]. Other studies have shown that boys are more often involved in physical bullying while girls in psychological and social/relational bullying [6]. [7] describe bullying as a form of aggressive behaviour which occurs between children mainly in school and is deliberate and it causes physical

or psychological damage and it can be expressed individually or within a group. Bullying as [8] observe, is usually persistent since it is repeated and it can last for weeks, months or even years.

There are three groups of individuals that are directly involved in bullying. These, according to [9] include bullies, victims and bully/victims. Bullies are the perpetrators of bullying behaviour and the main characteristics of bullies are impulsivity. aggressiveness. physical dominant behaviour and they appear to have a positive perception for violence and adopt exclusively aggressive strategies in negotiating their interpersonal conflicts because they lack alternative skills for conflict resolution [10]. Victims are the target of bullying behaviour and they tend to show increased symptoms of anxiety and depression [9]. Victims usually have low selfesteem and poor social skills, they have difficulties remaining in school, they do not actively participate in school activities and they exhibit psychosomatic symptoms as well as low self-confidence [11].

According to [12], one form of bullying involves older pupils victimizing younger children largely by physical and verbal means. As identified by [6], whenever school bullying occurs, it is easily identified and recognised by the fellow students or victims than the teachers. It has also been found that those who are smaller or less able to defend themselves become victims of bullies who regularly engage in hurtful teasing, name calling or intimidation and according to [13], the fundamental reason for their behaviour is that these bullies believe and convince themselves that they are superior to other students or blame others for being weak and bullies have to assert their domination by frequently fighting with others.

Studies of bullying suggest that there are short and long-term consequences for both the perpetrators and victims of bullying. As [14] posit, students who are chronic victims of experience more physical bullying psychological problems than their peers who are not harassed by other children and they tend not to grow out of the role of victim. Other studies also suggest that chronically victimized students may as adults be at increased risk for depression, poor self-esteem and other mental health problems including schizophrenia [15]. It is not only victims who are at risk for short and long term problems, bullies also are at increased risk

for negative outcomes [16]. [17] found that those elementary students who were bullies attended school less frequently and were more likely to drop out than other students. As [3] argue, bullying in early childhood may be a critical risk factor for the development of future problems with violence and delinquency. For example, [18] found that in addition to threatening other children, bullies were several times more likely than their non-bullying peers to commit antisocial including vandalism, fighting, drunkenness, truancy and to have an arrest by young adulthood. Another study by [19] found that aggressive behaviour at the age of 8 was a powerful predictor of criminality and violent behaviour.

Wolfe et al. [20] found that schools with both fair discipline and a supportive atmosphere have less bullying. They found that schools with an authoritative school climate characterised by high levels of both disciplinary structure and adult support for students have lower levels of bullying and other forms of student victimisation, [10]. On the other hand, schools with low structure and low support had higher levels of bullying and other forms of student victimisation (for example, fights among peers, theft, and so on). As [14] posit, a positive school climate is essential to the reduction of bullying and to student retention in school because schools with high levels of bullying and teasing had very high dropout rates compared with schools with low levels of bullying and teasing.

School personnel and bystander students can make a significant difference in rates of bullying [13]. Schools where staff, parents and students create common norms and ways of dealing with bullying can achieve sustainable reductions in victimisation and there is therefore a compelling need for schools to strengthen their delivery social-behavioural prevention programmes to achieve a well co-odinated, efficient and comprehensive school-wide approach [21]. Schools and communities should consider a well co-ordinated approach to developing strong home-school partnerships, coupled with wider community-level efforts to teach young people appropriate social-emotional skills, concern for others and an appreciation for activity, which are essential to the well-being of society [21]. [22] states that, as school administrators and significant others struggle with ways to prevent acts of bullying from their schools from occurring. they increasingly turn to school counsellors and other helping professionals in the school for leadership and help with establishing policies to prevent bullying. School counsellors can be of great assistance to both bullies and victims by teaching them a new style of education called "empathy training" where students as young as five years old are taught to understand the feelings of others and to treat people with kindness [23].

Peterson [24] suggested development and distribution of a written anti-bullying policy to everyone in the school community and also consistently applying the policy. [24] suggested mapping a school's 'hot spots' for bullying incidents so that supervision can concentrated in designated areas; having students and parents sign contracts at the beginning of the school year acknowledging that they understand it is unacceptable to ridicule, taunt or attempt to hurt other students, and teach respect and non-violence beginning in primary schools. Additionally, as [21] posit, teaching bullies positive behaviour through modelling, coaching, prompting, praise, social skills, conflict management, anger management, character education, signing anti-teasing or anti-bullying pledges will no doubt reduce bullying incidents in schools.

Another intervention programme that has been empirically supported and found to be helpful to teachers, school counsellors, psychologists, school administrators and parents who desire to address the increase of bullying is called the "Bully Buster" [21]. According to [21] this is a psycho-educational intervention for reducing bullying developed by [25]. The goals of the intervention are to: increase teachers' knowledge and use of bullying intervention skills; increase teachers' personal self-efficacy and self-efficacy related to working with specific types of children; and to reduce the amount of bullying and victimisation in the classroom and is generally implemented in the form of a staff development training workshop which is typically held over a course of three weeks for two hours per meeting [26].

However, as [23] observe, even though intervention strategies are designed and implemented to address bullying, it is essential to recognise that students can be discreet in devising ways to disguise bullying in order to escape identification. Therefore, some form of surveillance may be necessary to detect acts of bullying that occur outside the general area of the classroom and increasing public awareness

and knowledge about bullying behaviour problem can be a sure way to reduce the phenomenon [24]. This can be achieved by active involvement of teachers and parents in prevention programmes, vigilance by school personnel for incidents of bullying, development of firm sanctions and consequences for students who engage in bullying and teaching assertiveness skills to the bullied victims [23].

#### 2. METHODOLOGY

The employed study the quantitative methodology and made use of a survey research design. The study's population was made up of 300 teachers from Nkayi South Circuit in Nkayi District of Zimbabwe. The study employed a random sampling technique to select a sample of teachers. Before embarking on data collection, the researchers employed five research ethics. First, they applied for permission to carry out the study in selected schools Nkayi South Circuit in Nkayi District of Zimbabwe from the Permanent Secretary of the Ministry of Primary and Secondary Education in April 2014. Permission was granted in May 2014. Data collection was done between June 2014 and July 2014. Second, the researchers used the research permit to visit the research sites where they fully explained the purpose of the study to the school heads so that they would not view the researchers with any suspicion. Third, teachers were given a questionnaire and an informed consent form which had the purpose of the study and the likely risks associated with their taking part in the study. After reading the consent form, the teachers were neither compelled nor coerced to participate in the study. The respondents who signed the consent form voluntarily took part in the study. Fourth, the researchers made sure that both the consent form and the questionnaire contained information that the respondents responses were going to be used solely for this research and kept anonymous and confidential. The confidentiality and anonymity of the responses was made possible because the researchers did not need respondents' names. workplaces, physical and business addresses, email address, telephone and cell phone numbers or any other information that could reveal their identity. Fifth, the researchers did not invade into the respondents' privacy by asking the preceding information because this could inflict social and psychological harm on the respondents once the readers know who they are in the research report. Data were gathered by means of a questionnaire. The researchers

chose the questionnaire because of its ability to reach many respondents who live in widely dispersed addresses and preserves anonymity which encourages greater honesty, [27]. However, as [28] argues, the questionnaire generally has a low response rate and is inflexible in that it does not allow ideas or comments to be explored in-depth and many questions may remain unanswered. Data collected from the questionnaires produced descriptive statistics around the variables understudy. These statistics were computed and inferential implications from them derived and recorded.

#### 3. FINDINGS AND DISCUSSION

The study set out to investigate the nature and prevalence of bullying in Zimbabwean primary schools. This section is presented in two parts, namely, presentation of data and discussion, thereof.

#### 3.1 Presentation of Data

Table 1 below shows that there were more male teachers than female ones in the sample. This reflects a gender composition of 52% male and 48% female.

Table 1. Distribution of respondents by sex (N = 30)

Sex	Frequency	Percentage
Male	17	52
Female	13	48
Total	30	100

Table 2 below shows that the majority of respondents were in possession of the Diploma in Education (60%) followed by those with a Bachelor's Degree (33%). Only 2% were holders of the Certificate in Education. None had the Master's Degree.

The information on Table 3 above shows that the most common form of bullying in the schools is beating of other pupils (57%) followed by threatening (26%). Teasing constituted (10%) of the respondents' opinions about the most common forms of bullying whereas only 7% of the respondents indicated that verbal abuse was the most prevalent form of bullying.

Table 2. Professional qualifications of respondents (N = 30)

Qualifications	Frequency	Percentage
Certificate in	2	7
education		
Diploma in	18	60
education		
Bachelor's degree	10	33
master's degree	0	0
Other	0	0
Total	30	100

Table 3. Responses to the question: "Which are the most common forms of bullying in your school?" (N = 30)

Type of bullying	Frequency	Percentage
Beating others	17	57
Threatening	8	26
Teasing	3	10
Verbal abuse	2	7
Total	30	100

Table 4 reveals that most respondents indicated that boys were likely to perpetrate bullying (73%) and 23% indicated that girls were the ones most likely to bully other pupils. Only 4% of the respondents indicated that both boys and girls were likely to perpetrate bullying.

Table 4. Responses to the question: "Who are most likely to perpetrate bullying?" (N = 30)

Perpetrators	Frequency	Percentage
Girls	7	23
Boys	22	73
Both	1	4
Total	30	100

The results in Table 5 indicated that 26% of the respondents stated that peer groups were the most likely to influence bullying, followed by school climate (20%), child headed family and teachers' behaviours respectively (17%). Polygamous family and single parent family stood at 10% each.

From the responses in Table 6, it clearly shows that bullying cases at school level are mostly handled by the school head (33%) followed by the class teacher (20%) and the disciplinary committee (17%). Thirteen percent (13%) indicated that bullying cases were handled by all the above mentioned individuals, 10% indicated that these cases were handled by prefects and 7% said they were handled by parents.

Table 5. Responses to the question: "Which background was likely to be the source of bullying for children?" (N = 30)

Background	Frequency	Percentage
Polygamous family	3	10
Single parent	3	10
Child headed	5	17
Peer groups	8	26
School climate	6	20
Teachers' behaviour	5	17
Total	30	100

Table 6. Responses to the question: "Who handles bullying in your school?" (N = 30)

<b>Bully Handler</b>	Freque	ncy Percentage
School head	10	33
Class teacher	6	20
Disciplinary	5	17
committee		
Parents	2	7
Prefects	3	10
All the above	4	13
Total	30	100

The questionnaire had one open-ended question which wanted to find out from the respondents what strategies they thought could be used to reduce bullying. A number of strategies were listed. The most common ones in order of popularity were the following: corporal punishment, manual work, inviting parents to the school, guidance and counselling as well as improving the school and classroom atmosphere. These strategies are presented in Table 7 below.

Table 7. Strategies to reduce bullying (N=30)

Strategy	Frequency	Percentage
Corporal punishment	6	20
Manual work	5	17
Inviting parents to the school	5	17
Guidance and counselling	10	33
Improving the school and classroom atmosphere	4	13
Total	30	100

The scenario in Table 7 shows that the most common strategy employed to reduce bullying in the studied schools was guidance and counselling (33%). Guidance and counselling was followed by corporal punishment (20%), manual work (17%), inviting parents to the school

(17%), and improving the school and classroom environment (13%).

#### 3.2 Discussion

Findings from the study reveal that the most common form of bullying in the schools is physical bullying where the stronger pupils beat up the weaker ones. Teasing, threatening and verbal abuse are also quite prevalent. This finding tallies with observations by [29] who states that one form of bullying involves older pupils victimising younger children largely by physical and verbal means. It has also been found that those who are smaller or less able to defend themselves become victims of bullies who regularly engage in hurtful, teasing, name calling or intimidation [13].

Results of the study reveal that boys were responsible for cases of bullying in schools. Girls, though, were not totally excluded from bullying, although they perpetrate it on a smaller scale. This finding is congruent with observations from various epidemiological studies which have shown that bullying is more frequent among boys than among girls and that boys are more likely to become bullies compared to girls [29].

The results from this study also reveal that peer pressure was the major cause of bullying. The school climate also contributed a great deal towards influencing pupils to bully others as well as child-headed families and teachers' behaviour. Bullying, therefore, cannot be attributed to just one single background or variable. [10] found that schools with an authoritative school climate characterised by high level of both disciplinary structure and adult support for students have lower levels of bullying and other forms of student victimisation. Child-headed families are also likely to promote bullying in that children could not properly discipline each other in the absence of adults.

Results from the study reveal that bullying cases in the schools under study were largely referred to the heads of schools. Some of the cases were handled by class teachers with a few handled by the disciplinary committee. Very few cases of bullying were handled by prefects. Parents also played some minimum role in handling of bullying cases. It is to be expected that heads of schools had the bulk of cases of bullying by virtue of their positions. However, because of the nature of this phenomenon, it requires collective efforts to curb, thus the need to allow the parents, other

students and prefects to play a role. This is corroborated by [13] who states that schools where staff, parents and students create common norms and ways of dealing with bullying can achieve sustainable reductions in victimisation and therefore, a compelling need for schools to strengthen their delivery of social-behavioural prevention programmes to achieve a well-coordinated, efficient and comprehensive school-wide approach.

Results from the study reveal that strategies used to reduce bullying include corporal punishment, manual work, inviting parents to the school, quidance and counselling as well as improving the school and classroom atmosphere. This shows that schools are using strategies that are likely to promote rather than curb bullying. Corporal punishment and manual work are strategies that inflict pain on the perpetrators and could help harden the attitudes of the bullies and they may seek revenge on their victims. Instead of using harsh methods highlighted above, some authorities suggest that schools should use school counsellors and other professionals to help establish policies to prevent bullying. [30] state that school counsellors can be of great assistance to both bullies and victims by teaching them a new style of education called "empathy training."

# 4. CONCLUSION

Given the background of the above findings, the researchers make the following conclusions:

- Physical bullying is the most common form of bullying in the schools.
- Boys were the chief perpetrators of bullying in schools.
- Peer pressure was the major cause of bullying.
- Most cases of bullying were handled by heads of schools.
- Schools are using strategies that are likely to promote or amplify bullying rather than curb bullying.

#### 5. RECOMMENDATIONS

In light of the findings of this study, the researchers would like to make some recommendations.

 Schools and communities should consider a well co-ordinated approach to develop

- strong home-school partnerships coupled with wider community-level efforts to teach young people appropriate social-emotional skills, concern for others and an appreciation for civility which are essential to the well-being of society.
- Schools should also have a very clear policy on anti-bullying and make all concerned aware of the policy.
- Schools can also engage counsellors who can teach both bullies and their victims "empathy training" where students as young as five years old are taught to understand the feelings of others and to treat people with kindness.
- Heads of schools and teachers should be staff developed on various strategies to identify and control bullying.
- Schools should not ignore cases of bullying as this may create negative behaviour patterns from young children which may be difficult to stop at old age like developing into habitual criminals.

# **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

### **REFERENCES**

- 1. Smith PK, Brain P. Bullying in schools. Lessons from two decades of research. Aggressive Behaviour. 2000;26:1-9.
- Moyo J. Zimbabwe needs fresh cyber bullying laws. Harare: Sunday Mail. 2014;
  6.
- 3. Lawrence J, Young C. Disruptive behaviours. London: Giles Wedell; 2004.
- 4. Tattum DP, Herbert G. Bullying: A whole prison response. Cardiff: Institute of Higher Education. 2010;20-32.
- Tanaka T. The identity formation of the victim of shunning. School Psychology International. 2001;22(4):463–476.
- Joseph AD, James H, Price T. Susan KT. The nature and extent of bullying at school. Journal of School Health. 2003;73(5):173 – 180.
- Ttofi M, David F, Baldry A. Effectiveness of programmes to reduce school bullying. Stockholm: Swedish Council for Crime Prevention. 2008;24-35.
- 8. Veenstra R, Lindernberg S, Oldehinkel, AJ, De Winter AF, Verhulst FC, Ormel J. Bullying and victimisation in elementary

- schools: A comparison of bullies, victims, bully/victims and uninvolved preadolescents. Developmental Psychology. 2005;41(5):672–682.
- Stravrinides P, Paradeisiotou A, Tziogouros C, Lazarou C. Prevalence of bullying among Cyprus elementary and high school students. International Journal of Violence and School. 2010;15(4):114– 118.
- Wolke D, Woods S, Bloomfield L, Karstadt, L. The association between direct and relational bullying and behaviour problems among primary school children. Journal of Child Psychology and Psychiatry. 2000; 8(13):989–1000.
- Mansel TR, Overpeck M, Pilla RS, Ruan, WJ, Simons-Morton B, Scheidt P. Bullying behaviours among US youths: Prevalence and association with psycho-social adjustment. Journal of the American Medical Association. 2001;285(12):2094– 2100.
- Schwartz D. Sub-types of victims and aggressors in children's peer groups. Journal of Child Psychology. 2000;28(7): 181-192.
- McCartney J. Surveying the bullied to set policy. The Education Digest. 2005;70(6): 14–15
- Gan SS, Zhong C, Das S, Gan JS, Willis S Tully E. The prevalence of bullying and cyber bullying in high school: A2011 survey. International Journal of Adolescent Medicine and Health. 2014;26:27-31.
- Mckenna M, Hawk E, Mullen J, Hertz M. Bullying among middle school students. Morbidity and Mortality Weekly Report. 2011;60(15):465-471
- Reid K. Retrospection and persistent school absenteeism. Educational Journal. 1993;25(5):110-195
- Wedell D.H Hickhen S.K, Smarandescu L. Constructing models of assimilation and contrast. Assimilation and contrast in social psychology. New York: Psychology Press; 2007.
- Mansel TR, Overpeck M, Pilla RS, Ruan, WJ, Simons-Morton B, Scheidt P. Bullying

- behaviours among US youths: Prevalence and association with psycho-social adjustment. Journal of the American Medical Association. 2001;285(12):2094–2100
- Williams K, Chambers M, Logan S, Robson D. Association of common health symptoms with bullying in primary school children. British Medical Journal. 1996; 313(14):17–19.
- Wolfe D, Wekerle C, Sctt K, Straatman A, Grasley C. Protecting abusive relationships among maltreated and non-maltreated youth. Developmental Psychology. 1998; 10:61-85
- Mayer MJ, Furlong MJ. How safe are our schools? Educational Researcher. 2010; 39(4):16–26.
- 22. Smith PK. Cyber bullying: Abusive relationships in cyberspace. Journal of Psychology. 2009;217(10):147–154.
- Aluede O. Bullying in schools. A form of child abuse in schools. Educated Research Quarterly. 2006;30(1):37–49.
- 24. Peterson JS. Gifted children and bullying: Victims and perpetrators. Gifted Child Quarterly. 2005;50(2):148–168.
- Newman P, Home C, Bartolomucci T. Correlates of peer victimisation and achievement. An explanatory model. Psychology in Schools. 2000;46:348–361.
- Bedell R, Home AM. Bully prevention in schools: A United States experience. Journal of Social Science Special Issue. 2005;8:59–69.
- 27. Bell J. Doing your research methods. Buckingham: Open University; 2003.
- 28. Blumberg C. Research Methods. Boston: Irwin; 2008.
- Gan SS, Zhong C, Das S, Gan JS, Willis S, Tully E. The prevalence of bullying and cyber bullying in high school: A 2011 Survey. International Journal of Adolescent Medial Health. 2014;26(1):27–31.
- 30. Mckenna M, Hawn E, Mullen J. Bullying among middle school and high schools students. Morbidity and Mortality Weekly Report. 2011;60(15):465–471.

© 2015 Ncube et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

#### Peer-review history:

The peer review history for this paper can be accessed here: http://www.sciencedomain.org/review-history.php?iid=1065&id=21&aid=8585