

BULLYING AMONG ADOLESCENTS AND IT'S ASSOCIATED FACTORS

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ABSTRACT

The practice of bullying among adolescents has substantial impact on a wellbeing and development of a child. It influences their behaviour, cognitive and social skills, nutritional and physical growth. Along with the rapid environmental development, bullying practice poses a huge threat and liability among the victim, perpetrator and the bystanders. In view of this, the intense awareness among the public is crucial in ensuring we will be able to empower the children to be able to sustain such threat. Therefore, the main objective of this article is to discuss about the prevalence, associated factors and impact of bullying among adolescents.

Keywords: Bullying, adolescents, victim, perpetrator, impact

1.0 Introduction

Bullying is defined as a set of aggressive behaviour (Olweus 1999), a systematic abuse of power (Smith & Sharp 1994), a form of peer abuse (Fried and Fried 2001) and all these acts involves three crucial elements which are repetition, harm, and unequal power (Smith and Sharp 1994). A person is bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons, and he or she has difficulty defending himself or herself (Olweus 1999). The imbalance of power between these two individuals, causes the stronger child to repeatedly cause harm to the weaker person (Farrington 1993; Olweus 1993).

Adolescent and young children involved in bullying are at risk for developing behavioural difficulties, physical health problems, and suicidal ideation (Kim et al. 2011). Bullying involvement is highly prevalent, affecting up to half of adolescents worldwide (Nansel et al. 2012). Identifying early factors that may increase their risk for becoming involved in bullying may guide prevention strategies for reducing bullying behaviours and has the potential to change the trajectory of adolescent at risk for becoming involved in persistent bullying (Barker 2009). In turn, this could help to reduce mental and physical health problems among them.

Bullying is important not just because of the impact on the victim, but as well it is more likely to continue if there are bystanders present (O'Connell et al. 1999). In the 21st century, it is not only more frequent with a worldwide occurrence 5-15% as well becoming more lethal (American Psychological Association 2011). There are increasing number of suicides and the use of aggressions as a result of being bullied in schools (Fried and Fried 2011). Bullying is considered as a continuum of behaviours as many perpetrators were once a target and vice-versa (Fried and Fried 2011), with less than 13% remains in the initial group (Swearer et al. 2009). Bullying just does not occur between the perpetrator and victim but it is a dynamic social problem with many youths moving in and out of various roles, depending on the social-ecological conditions (Swearer et al. 2009).

Olweus (1993) describes these adolescent who are the perpetrators as having a strong need to dominate and suppress others and to get their own way, being impulsive and are easily angered, often are defiant and aggressive towards adults including their parents and teachers and having little empathy towards students who are victimized. In general, they are physically stronger than others. The victims of bullying in other hand are cautious, sensitive, quiet, withdrawn and shy. They are often anxious, insecure, unhappy and have low self-esteem. The state of being depressed and with suicidal ideation much more often than their peers and frequently they do not have a single good friend and relate better to adults than to peers. Being a male, they may be physically weaker than their peers.

Nevertheless, bullying is much more common than believed or identified. To stop students from involving in bullying, we need clear policies, active involvement from stakeholders and focus on primary prevention. Early childhood is the ideal time to foster anti-bullying behaviour. The longer they persist in negative behaviours, the harder and more costly it becomes to rectify it later in life.

2.0 Prevalence of Bullying in School

The incidences of bullying in educational institutions are frequently reported and had alerted the stakeholders as their main worry is the welfare of the students and globally, it is being perceived as extensively occurring health issues and the most underreported safety problem in schools (Moon, Hwang, & McCluskey, 2011). According to Parault, Davis & Pellegrini (2007) the critical age of students in aggressive and violent behavior is found at the beginning of secondary school or at early adolescent.

Being one of the most frequently faced problem by any school authority, numerous multicentre studies related to this issue has been carried out around the world. The exact burden of school bullying varies according to different region and it is an interesting fact to know on how is the distribution around the world. In view of this, results from Global School Health Survey (GSHS) were reviewed.

This global school based survey is a collaborative surveillance project designed to help countries measure and assess the behavioural risk factors and protective factors in 10 key areas among adolescents aged 13 to 17 years old. The 10 key areas are alcohol use, dietary behaviours, drug use, hygiene, mental health, physical health, physical activity, protective

factors, sexual behaviours, tobacco use, and violence and unintentional injury. It is relatively low-cost school-based survey which uses self-administered questionnaire to obtain data on young people's health behaviour and protective factors related to the leading of morbidity and mortality among children and adults worldwide. The results of bullying among adolescents were summarized within the last 10 years, between years 2007 to 2017.

Table 2.1: Distribution of percentage victim of bullying in accordance to regions in World Health Organization (WHO)

COUNTRY	YEAR	SAMPLE (age)	PREVALENCE (% victim)
AMERICAS			
United States of America	2015	11, 13 and 15	27.0
Canada	2015	11, 13 and 15	37.2
Anguilla	2009	13 to 15	27.8
Chile	2013	11, 13 and 15	12.2
Ecuador	2007	13 to 17	30.7
Jamaica	2010	13 to 17	40.2
AFRICA			
Algeria	2011	13 to 17	51.7
Ghana	2008	11, 13 and 15	24.1
Mauritania	2010	11, 13 and 15	47.2
Mozambique	2015	13 to 17	43.1
Namibia	2013	13 to 17	45.9
Swaziland	2013	13 to 17	31.8
EASTERN MEDITERRANEAN			
Afghanistan	2014	13 to 17	41.3
Bahrain	2016	13 to 17	28.2
Egypt	2011	13 to 15	70.0
Iraq	2012	13 to 15	27.7
Kuwait	2011	13 to 15	19.0
Morocco	2010	13 to 15	19.2
Palestine	2010	13 to 15	59.5
Pakistan	2009	13 to 15	41.1
Qatar	2011	13 to 15	42.1
Sudan	2012	13 to 15	41.0
Syria	2010	13 to 15	45.5
Yemen	2014	13 to 15	39.1
EUROPE			
Republic of Macedonia	2007	13 to 15	10.7
Tajikistan	2007	13 to 15	7.4
SOUTH EAST ASIA			
Bangladesh	2014	13 to 17	24.6
Indonesia	2015	13 to 17	20.6
Myanmar	2007	13 to 15	19.4
Nepal	2015	13 to 17	51.0
Sri Lanka	2008	13 to 15	37.9
Thailand	2008	13 to 15	27.8
Timor Leste	2015	13 to 17	28.3
WESTERN PACIFIC			
Brunei	2014	13 to 17	21.1
Cambodia	2014	13 to 17	22.3
Fiji	2016	13 to 17	27.0
Lao	2015	13 to 17	11.8
Malaysia	2012	13 to 17	17.7
Vietnam	2013	13 to 17	23.4

Source: Centre for Disease Control and Prevention, Atlanta 2017

In the region of Americas, the prevalence of the bullying victim in the last 30 days were from 12.2% to 40.2% among the participating countries. The lowest reported was from Chile and highest reported was from Jamaica, 40.2%. Among the countries in Africa region, the highest reported bullying victim was from Algeria (51.7%) and the lowest was Ghana (24.1%). In the region of Eastern Mediterranean countries, Egypt reported the highest so far with 70.0% of bullying victim and the lowest was Kuwait (19.0%).

There were only Republic of Macedonia and Tajikistan participated in GSHS in European region. Both reported 10.7% and 7.4% respectively on bullying victim. Among the South East Asia region, Nepal reported the highest with 51.0% bullying victim and the lowest was from Myanmar with 19.4%. Finally, from the Western Pacific region, the highest was from Fiji with 27.0% reported bullying victim and the lowest was from Lao with 11.8%. Malaysia reported 17.7% of bullying victim.

Based on Global School Health Survey, Malaysia's result is still lower compared to regional and world average. Nevertheless, identifying the associated factor related to bullying involvement and its short, intermediate and long term effects are crucial in ensuring the level of incidence can be reduced further with target specific interventions focusing on school bullying prevention among Malaysian adolescents.

3.0 Types of Bullying

According to (Limber, 2014), there are different types of bullying exist which being used by the perpetrator as a form of aggression on the victim. Commonly it is known as physical, verbal, relational and cyber bullying. For physical bullying, it includes the act of hitting, kicking, punching, spitting, tripping and pushing others. It is the most frequently committed (Mamun, M J O'Callaghan, Williams, & Najman, 2013) and mainly the perpetrators are male students (Chester et al., 2015; Gendron, Williams, & Guerra, 2011; Mamun et al., 2013). Although there is a rise in the involvement of the female students, comparatively, male are still dominant in such kind of aggression (Price, Chin, Higa-McMillan, Kim, & Christopher Frueh, 2013).

In terms of verbal bullying, this form of bullying involves the act of taunting, name calling, threatening words, notes or gestures to their victim (Limber, 2014). Such type of bullying are second most commonly committed by the perpetrator and usually coincides with physical bullying (Campbell, & Skarakis 2011). Such act of aggression are most commonly carried out by the male students and this verbal bullying can go out of hand whereby involves extreme gestures such as racism comments (Dollery, 2015).

For relational bullying, it is designed to harm reputation and relationships such as social isolation, spreading rumours and posting embarrassing images (Limber, 2014). It is mainly perpetrated by the female students and very challenging to curb due to its nature of being carried out indirectly and tracing the root source can be a daunting task and less preferred by others (Due et al., 2009). The final forms of bullying is also called as cyber bullying.

In recent years, new forms of aggression based on information and communication technology (computers, cell phones, etc.) have been added to the traditional forms of violence. Known as cyber bullying, it is defined as an aggressive and deliberate behaviour that is frequently repeated over time, carried out by a group or an individual using electronics and aimed at a victim who cannot defend him or herself easily (Smith 2006). Patchin, and Hinduja (2006) describe it as deliberate and repeated harm performed with some kind of electronic text. These act can be carried out by means of a cell phone, electronic mail, internet chats, and online social media network such as Facebook and personal blogs. In many instances, cyber bullying implies acts of traditional aggression (for example, insulting, spreading rumours, or threatening), which are communicated electronically instead of face to face, it can also include unique behaviours with non-involvement of the traditional form (Calvete, Orue, Estévez, Villardón, & Padilla, 2010).

4.0 Factors Associated With Bullying Among Adolescents

4.1 Individual factor

4.1.1 Low self-control

Mentioned by (Gottfredson, R, & Hirschi, 1990), they have related the practice of bullying among student with a type of criminal behavior. They further stressed that such practice is similar to many kind of social crime and considered bullying as a serious problem in relation to student safety in school and threat to their academic achievements. According to (Gottfredson et al., 1990), low self-control is the main source of criminal behavior and behavior analogous to crime, in which individuals are more likely to seek immediate gratification, to be physically active, to be insensitive to others, and to possess limited academic ability. They then argued that individuals who possess the low self-control trait are more likely to become involved in criminal, deviant, and accidental behaviors than those who possess high levels of self-control.

However, in this theory, it is stated that the simple level of self-control is not, in and of itself, an adequate condition leading to criminality. As they state, lack of self-control does not require crime and can be counteracted by situational conditions. Nevertheless, high self-control effectively reduces the possibility of crime, that is those possessing it will be substantially less likely at all periods in life to engage in criminal acts (Gottfredson et al., 1990). According to this theory, the most effective way to intervene in low self-control of children is to maximize the role of parents. Gottfredson et al. (1990) argued that the effective parental practices like monitoring, recognition of deviant behaviors, and punishment of deviant behavior, have significant effects on the development of self-control. Parenting practices are hypothesized to have a significant effect on children's self-control, which in turn affects deviant and criminal behavior (Moon et al., 2011).

However, if child bringing up patterns in families are the main cause of bullies' behavior, with some parents' are being authoritarian and violent, maximizing the role of parents will create more similar behavior when the child imitates their parent's style. Other reason for these adolescent having low self-control is due to their brain developmental immaturity. Adolescence is characterized as individual with lack of emotional steadiness, violent

impulses, unreasonable conduct and lack of enthusiasm. They are described further to be sympathized with previous selfhood was broken up and a new individual is in the process of being born (Hochberg & Belsky, 2013).

4.1.2 Psychosocial distress level

According to Agnew (2002), he proposed that strain or stress experienced by an individual can manifest itself in problematic emotions that lead to deviant behavior. Specifically, three types of strain were proposed which is strain as the actual or anticipated failure to achieve positively valued goals, strain as the actual or anticipated removal of positively valued stimuli, and strain as the actual or anticipated presentation of negatively valued stimuli to individuals. Another suggestion of this theory is that strain can create negative emotions in individuals such as anger, anxiety and depression which in turn influence delinquency (Moon et al., 2011). According to general strain theory, individuals experience negative reaction and emotion, especially anger when they are treated unjustly and unfairly (Agnew 2002). Agnew maintains that individuals who experience strain are more at risk to engage in deviant or delinquent behaviors.

The relationship of the elements of general strain theory to the phenomenon of bullying has been suggested in several studies. For an example, according to Browne, & Falshaw (2006), have reported a sample of youth placed in Glenthorne Centre, Birmingham. It was a secured residential place for severely distributed and antisocial young people. At the center, it was found that bullies were more likely to have experienced and suffered childhood physical and emotional abuse, as indicated by their placement on the child protection register. Another similar study by (Olweus 2003) with diverse samples among secondary school student in Norway, revealed that adolescent experience of physical punishment, maltreatment, and rejection by parents, peers, and teachers are significantly related to bullying. In addition, (Espelage, L, Kris, & Simon, 2001) indicated that anger has a significant positive effect on bullying. Overall, these findings would be consistent in considering psychological distress experienced by these individual are more likely to engage in bullying.

Researchers also has found that bully-victims, victims, and the perpetrators experience depressive disorders. In a study among secondary school students in Finland, 18% of bully-victims, 13% of bullies, and 10% of victims experienced depression (Kumpulainen, Räsänen, & Puura, 2011), which is higher than the estimated 8.3% of adolescents who are diagnosed with a depressive disorder (National Alliance on Mental Illness, 2013). Bullying is also commonly regarded as an aspect of aggression (Strohmeier, Fandrem, & Spiel, 2012). This has been detected within school children and adolescents. Among the considerations is the emotional component of the perpetrators, making bullying an aspect of aggression in which the majority of victims feel rather unsafe, anxious, sensitive and non-aggressive (Rivers, Poteat, Noret, & Ashurst, 2009).

In line with this, Rivers et al. (2009) also characterized bullies as an aggressive personality pattern and they are aggressive not only to their victims at school but also in many other contexts, probably towards their peers, sibling, and adults, and some of them end up being antisocial young adults. However, this general agreement was not followed by any clear expression as to what kind of aggression may be involved. Thus, bullying is often confused with aggression in general.

4.1.3 Ethnicity

Involvement in bullying is a cross-cultural phenomenon and transcends ethnicity (Swearer, Espelage, Vaillancourt, & Hymel, 2010). However, research has shown that students who were in the ethnic minority in a school were more likely to be bullied than students who were in the ethnic majority (Kumpulainen et al., 2011). Similarly, in Malaysia, a study by Salwina et al. (2009) showed that majority of the perpetrators were from the Malay ethnicity who were the majority and mostly the victims were the minority Indians. In this instance, different racial group from the majority has been identified as a vulnerable factor to being bullied. The cultural differences in terms of the different perception of bully/victim problem and willingness to report the problem may also contribute to the ethnic differences. However, it is possible that the ethnic majority or minority have influence on who will become bullies and victims respectively (Salwina et al. 2009).

4.1.4 Gender

While both girls and boys were involved in bullying perpetration and victimization, research has found that boys were involved in bullying at greater rates than girls (Cook, Williams, Guerra, & Kim, 2010). Similarly, based on the results obtained by Salwina et al. (2009), being a boy was a significant predictor to become the perpetrator with the odds were 9 times higher than girl and also boys were more prone to become the victim compared to their counterparts from the opposite gender. These have been consistent findings so far and other studies among students in Kansas, Shanghai and Victoria, Australia showed similar results (Chester et al. 2015; Wu et al. 2014; Due et al. 2009).

4.1.5 Academic performance

Understanding the relationship between bullying and academic achievement is quite complicated. Some research has demonstrated that victims and bully-victims do poorly in school (Glew, Fan, Katon, Rivara, & Kernic, 2005), while other research has found that the connection between being bullied and low academic achievement was more robust when there was low parental support and school disengagement (Konishi, Hymel, Zumbo, & Li, 2010). When students were challenged and motivated to do well in school, engagement in bullying and victimization was lower. In a study among 591 Iranian students from 24 secondary school students, it showed that those involved in bullying and victimization were less if their scoring average for each examination was higher and more academically engaged (Klomek et al., 2007).

4.1.6 Body mass index (BMI)

A research was conducted by Mamun et al. (2013) to examine whether adolescent males and females who were victims of bullying were at greater risk of a higher body mass index (BMI) and obesity by young adulthood. It was carried out on 1,694 students from the age group of 14 years old in Brisbane Australia. It shows that, one in two male adolescents and one in three female adolescents reported that they had been bullied at school by others. They further stressed that those who were bullied were at significantly higher BMI and being obese.

These result was similar to (Jansena et al., 2014) whereby 4,364 teenagers were assessed and by (Yen, Liu, Ko, Wu, & Cheng, 2014) on 52,252 teenagers in Taiwan showed a high BMI is

a risk factor associated with victimization and bullying perpetration, with obese children particularly likely to be victims and aggressors. Such outcome possibly due to obesity triggers peer problems and the association may also reflect a common underlying cause that makes obese children vulnerable to bullying involvement.

4.1.7 Age

According to Elizabeth, Feagans & Ray (2013), adolescents is defined as a period of personal development during which a young person establishes a sense of individual identity and feelings of self-worth which include an alteration of his or her body image, adaptation to more mature intellectual abilities, adjustments to society's demands for behavioral maturity, internalizing a personal value system, and preparing for adult roles. These youngsters are from the ages 10 to 19 years old (WHO 2013). However, in many instances these young generation tends to presume the roll of the adults by making irrational decisions due to mentally and physically unprepared. Development of their brain is far from complete at the time of birth, with maturation continuing through childhood and adolescence, and even some age-related changes in brain organization and function, including the generation of modest numbers of brain cells into adult life (Hadders 2010) .

Hadders (2010) further added that one of the main region (forebrain or frontal lobe) is still not fully developed. This part of the brain controls the planning, attention, judgment, reflection, prioritizing, self-control, impulse control, goal directed behavior, second thought, working memory, mood modulator, goal-directed behavior and foresee consequences. Due to this, the adolescents tend to frequently make inaccurate decisions, perceive information wrongly and indulge in high risk behaviors. This closely linked them to delinquency which bullying is part of it (Hadders 2010). In another words, teenagers are not crazy but they are just different.

4.1.8 Peer factor

4.1.8.1 Peer group effect

Several studies have examined the relationship between delinquent peer association attitude toward violence and bullying (Moon et al., 2011). The phenomenon of bullying behavior is most probably due to the result of the association of children with delinquent environments, although research into the extent of bullying does not specifically adopt this idea as part of their theoretical framework to explain bullying. Rigby (2008) argued that students who were powerfully influenced by a smaller group of peers with whom they have relatively associated. By associating those with friends who exhibit antisocial behavior and have criminal attitudes, individuals can easily adopt the techniques of committing criminal behaviors, as well as motives and attitudes that serve to promote criminal and antisocial behaviors (Moon et al., 2011).

Studies on juvenile criminals have mostly shown that those who associated with delinquent peers were more likely to engage in antisocial and delinquent behavior. Referring to social learning theory developed by (O'Connell 1999), he had identified three conditions that influence the likelihood of imitation. He said that children are more likely to imitate a model when the model was powerful enough; the model was rewarded rather than punished for the behavior; and the model shares similar characteristics with child. He then noted that in case of bullying, these conditions were often present.

During the observation, O'Connell (1999) found that the perpetrators of bullying were hardly punished. Only 11% of bullying episodes were being intervened by peers and 4% by teachers. Consequently, peers may be influenced by bullies to become involved in bullying as active participants. According to (O'Connell 1999), bullies may influenced the behaviors of peers in some ways. First, bullies capture the attention of peers by exposing the way how they engaged in aggressive behavior. Bullies who had been engaging intensively in aggressive behavior and never been punished tend to be far more aggressive and also tend not to be more fearful of any consequences.

Second, lack of sensitivity of the peers to filter the exposure of negative aspects of aggressive interaction among them, may cause the imitation of similar actions (Hemphill, Heerde & Gomo 2014). In addition to this, they further argued that evidence for peer modeling on the ground comes from our first observation in which peers were actively involved in bullying in 48% of the episodes. There had been a consideration that in peer victimization, one can distinguished between being victimized by an individual and being victimized by a group. Individual victimization can only lead to personal harassment while group victimization may occur amongst individuals in a group or between one or more groups against others (Hemphill, Heerde & Gomo 2014).

In group victimization, the outcomes become more complex since those who witnessed the bullying activities or also called as bystanders may then become involved in bully activities as well. The involvement of bystanders in the bullying activities is merely the result of contextual effects of group norms which worked during the victimization (Salmivalli, 2014). In this particular situation, Salmivalli (2014) further added even if a child empathizes with the victims, and thinks that bullying is wrong, there may be classroom-level influences that encourage them not to join in bullying, or at least not to show sympathy for the victims. In relation to this, (Olweus 2003) argued that it is not surprising that bullying is a group process in which several group mechanisms were involved. Group norms may regulate bullying-related behaviors through processes such as peer group pressure and conformity to it.

4.1.9 Family factor

4.1.9.1 Parental characteristics

In a synthesis of research on family characteristics of bullies, bully-victims, and victims, psychologist (Suzet, Samarab & Dieter 2013) found that bullies typically come from families with low cohesion, little warmth, absent fathers, high power needs, permit aggressive behavior, physical abuse, poor family functioning, and authoritarian parenting.

Bully-victims came from families with physical abuse, domestic violence, hostile mothers, powerless mothers, uninvolved parents, neglect, low warmth, inconsistent discipline, and negative environment. Male victims had mothers who were overprotective, controlling, restrictive, coddling, over involved, and warm while their fathers were distant, critical, absent, uncaring, neglectful, and controlling. Among female victims, they had mothers who were hostile, rejecting, withdrawing love, threatening, and controlling, while their fathers were uncaring and controlling (Suzet, Samarab & Dieter 2013).

The findings above was similar to another report prepared by (Dollery, 2015). Few family characteristics had been linked to bullying perpetration such as involvement of family members in gangs, poor parental supervision, negative family environment, parental conflict, domestic violence, low parents' education and income, low parental communication, lack of parent emotional support, authoritarian parenting, inappropriate discipline, and parental abuse.

Being in a family where parents fight and use drugs and alcohol and who are physically or sexually abusive predicted both bully perpetration and victimization (Susan 2011). Another study mentions that youth who bully others consistently report family conflict and poor parental monitoring (Cook et al., 2010). Although such findings were consistent and linked to the victim and the perpetrator, causal direction has not been clearly established and the impact of families on this adolescents need to be further scrutinized. This is because, family influences on victimization have been very vague and inconclusive (Dollery, 2015).

4.1.10 School factor

In ensuring a positive and more harmonious environment, the school climate is very crucial. The teachers, by being the adults and the guardians at school, they play a major role in creating more conducive environment for the students. By being the adults in school and ignoring bullying or feel that bullying is just a common behavior among the students, it will results in higher incidence of bullying in school (Holt, & Koenig 2011). Also, if the school climate was not supportive and unhealthy, bullying and other problems which are related to it, proliferates further. In another words, school with the existence of high level of bullying were schools that have a negative and punitive school climate (Kasen et al. 2011). Besides the influences of school teacher and school climate, classroom characteristics were equally essential.

School is comprised of classrooms and it stands to reason that healthy classroom environments will have less bullying and victimization. This is based on the classroom characteristics which have been found to be associated with greater levels of bullying and victimization. The mentioned characteristics are negative peer friendship, poor teacher-student relationships, lack of self-control and poor problem solving among students (Champion, & Jones 2011). Besides classroom characteristics, the sense of school belonging need to be instill among every student. In a study, it shows that elementary students who bullied others reported lower rates of school belonging than students who were victimized or not involved in bullying (Ma et al. 2009). Data from 16,917 middle and high school students showed that feelings of school belonging were associated with less bullying and victimization (Swearer 2011).

4.1.11 Community factor

Beyond the effect of other factors, there is the influence of the society at large. Study showed higher level of bullying linked to negative or unsafe neighborhoods (Espelage, Bosworth, & Simon, 2000), gang affiliation (Dollery, 2015), and poverty (Waasdorp, Pas, O'Brennan, & Bradshaw, 2011). Research has also linked bullying perpetration to exposure to violent TV (Hong & Garbarino, 2012) and video games (Dollery, 2015). Generally, increased bullying and victimization were found in communities in which violence was modeled and/or condoned, although, again, the causal nature of these relationships remains unclear.

Characteristics of neighborhoods have a significant effect on bullying behavior (Cook et al., 2010). They further stressed that neighborhoods that are unsafe, violent, and disorganized are breeding grounds for bullying. Living in a safe, connected neighborhood predicted less bullying and victimization (Swearer 2011).

3.0 Consequences of Bullying

Rigby (2008) identified and categorized the possible consequences and negative health conditions of those involved in bullying. It involves low psychological well-being which includes state of mind that is generally considered unpleasant such as general unhappiness, low self-esteem and feeling of anger and sadness. Next category was poor social adjustment. This normally includes feeling of aversion toward one's social environment by expressing dislike, loneliness and isolation in one's environment. Other category includes psychological distress. This was considered to be more serious than the first two categories and includes high level of anxiety, depression, and even suicidal thinking. Finally it was physical unwellness. Children who become victims of bully were more likely than others to suffer physical illness (Brito & Oliveira, 2013).

3.1 Consequences on the perpetrator

Within studies of bullying, few findings had focused on the consequences for those who bully. There was no clear consensus, unlike the consequences for victims, which can enlighten us on how bullies experience the consequences of what they had been doing, upon themselves. However, there had been findings that show some possible consequences for those who bully. Olweus (2003) had found that during his studies in Norwegian schools those who had been identified as bullies in school were 4 times more likely to come before the court as a consequence of delinquency. From longer studies in the United Kingdom, it has also been shown that those who had been identified as bullies at school were more likely than others to have children who behaved aggressively (Farrington 1993). There was no clear explanation on how this happened, whether by family influence or genetic transmission or both (Rigby, 2008).

Other claims in relation to the negative consequences for those who bully were that children who habitually bully significantly experience higher levels of depression or even develop suicidal thought (Rigby 2000). However, the claim remains unclear as to whether this should be regarded as the possible consequence of bullying in relation to feelings of guilt or shame, or whether it is related to negative styles of parenting, or both (Rigby & Slee, 1994).

3.2 Consequences on academic achievement

Of particular concern has been the proof that frequent bullying among children has negative impact on victims' school achievement. This issue has been examined through a large scale study of bullying in USA by Nansel et al. (2001). They found from the observation of 15,000 students in grade 6-10 that there was a significant association between bullying involvement and lower self-perceived academic achievement. In addition to this, Schwartz et al. (2012) noted that those who were frequently involved in bullying showed poor academic performance in school.

However, studies from a large sample of students in Scandinavian countries had shown no evidence to understand aggressive behavior as a consequence of poor grades at school. Rather, it was found that both bullies and victims had somewhat lower than average marks than children who were not involved in bullying activities (Olweus 2003). The mentioned risk factors for bullying and victimization clearly highlights the complexity of this problem on the outcome of bullying and victimization. The bottom line is that without effective intervention, the consequences of bullying and victimization is unimaginable on the individual, family, community and environmental point of view.

3.3 Biological consequences

Studies of early social deprivation had demonstrated that the social environment alters brain functioning (Chugani et al. 2001). Other researches also had been extended to our understanding of how bullying experiences can alter brain chemistry and functioning. The stress of being bullied had been hypothesized to depress immune functioning and research has found that cortisol moderated the link between being bullied and physical health. As neuroscientists have long argued, it was impossible to separate the brain from behaviour (Vaillancourt et al. 2010).

4.0 Conclusion

As a conclusion, incidence of bullying are associated to multifactorial domain. Its impact are imminent. Nevertheless, it requires strong leadership and commitment from all members of the family, school and community. Essentially, the creation of safe and supportive environment through comprehensive and integrated school-wide approaches might be the answer. No-violent and caring educational environment reduces bullying and its impact further. At the same time it increases the quality and positive output of education and knowledge. However, such effort needs careful planning, implementation and periodic evaluation in ensuring the objectives were met. The urge for strong provision on bullying in current available law are mandatory. Nevertheless, it is vital to the relevant stake holders to continuously remain firm in their responsibility to create a safe and sustainable environment for the children.

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Declaration

Author(s) declare that all works are original and this manuscript has not been published in any other journals.

Authors' contribution

Author 1: Idea conceptualizing, literature review, drafting the final manuscript, publication

Author 2: Advised during manuscript preparation, idea conceptualizing

Author 3: Idea conceptualizing, literature review

Author 4: Advised during manuscript preparation, reviewing the final draft

Author 5: Reviewing the final draft

References

- Agnew, R. (1992). Foundation for a Generalism Strain Theory of Crime and Delinquency. *CRIMINOLOGY*, 30(1).
- Brito, C. C., & Oliveira, M. T. (2013). Bullying and self-esteem in adolescents from public schools. *Jornal de Pediatria*, 89(6), 601–607.
- Browne, K., & Falshaw, L. (1996). Factors related to bullying in secure accommodation. *Child Abuse Review*, 5(2), 123–127.
- Calvete, E., Orue, I., Estévez, A., Villardón, L., & Padilla, P. (2010). Cyberbullying in adolescents: Modalities and aggressors' profile. *Computers in Human Behavior*, 26(5), 1128–1135.
- Campbell, W. N., & Skarakis-Doyle, E. (2011). The relationship between peer conflict resolution knowledge and peer victimization in school-age children across the language continuum. *Journal of Communication Disorders*, 44(3), 345–358.
- Chester, K. L., Callaghan, M., Cosma, a., Donnelly, P., Craig, W., Walsh, S., & Molcho, M. (2015). Cross-national time trends in bullying victimization in 33 countries among children aged 11, 13 and 15 from 2002 to 2010. *The European Journal of Public Health*, 25(suppl 2), 61–64.
- Cook, C. R., Williams, K. R., Guerra, N. G., & Kim, T. E. (2010). *International Handbook of School Bullying: An International Perspective*.
- Dollery, B. (2015). *Understanding the Psychology of Bullying* (Vol. 70).
- Due, P., Merlo, J., Harel-Fisch, Y., Damsgaard, M. T., Holstein, B. E., Hetland, J., Lynch, J. (2009). Socioeconomic inequality in exposure to bullying during adolescence: A comparative, cross-sectional, multilevel study in 35 countries. *American Journal of Public Health*, 99(5), 907–914.
- Elizabeth, Feagans, L. V., & Ray, W. J. (2013). *Emotion, Cognition, Health, and Development in Children and Adolescents*. Psychology Press (Vol. 38).
- Espelage, D. L., Bosworth, K., & Simon, T. R. (2000). Examining the social context of bullying behaviors in early adolescence. *Journal of Counseling and Development*, 78(3), 326–333.

- Espelage, L. D., Kris, B., & Simon, T. (2001). Short-Term Stability and Prospective Correlates of Bullying in Middle-School Student. *Violence and Victims, 16*(4), 411–426.
- Gendron, B. P., Williams, K. R., & Guerra, N. G. (2011). An Analysis of Bullying Among Students Within Schools: Estimating the Effects of Individual Normative Beliefs, Self-Esteem, and School Climate. *Journal of School Violence, 10*(2), 150–164.
- Glew, G. M., Fan, M.-Y., Katon, W., Rivara, F. P., & Kernic, M. a. (2005). Bullying, psychosocial adjustment, and academic performance in elementary school. *Archives of Pediatrics & Adolescent Medicine, 159*(11), 1026–1031.
- Gottfredson, R. M., & Hirschi, T. (1990). *A General Theory of Crime*. Stanford University Press.
- Hadders, M. (2010). Variation and variability: key words in human motor development. *Physical Therapy, 90*(12), 1823–1837.
- Hemphill, S. A., Heerde, J. A., & Gomo, R. (2014). *Defining Bullying A conceptual definition of school-based bullying for the Australian research and academic community*. Sydney.
- Hochberg, Z., & Belsky, J. (2013). Evo-devo of human adolescence: beyond disease models of early puberty. *BMC Medicine, 11*(1), 113.
- Hong, J. S., & Garbarino, J. (2012). Risk and Protective Factors for Homophobic Bullying in Schools: An Application of the Social-Ecological Framework. *Educational Psychology Review, 24*(2), 271–285.
- Jansena, P. W., Marina Verlindena, Anke Dommisse-van Berkeld, C. L. M., Raate, H., Hofmanf, A., Jaddoec, V. W. V., Tiemeiera, H. (2014). Teacher and Peer Reports of Overweight and Bullying Among Young Primary School Children. *Pediatrics, 134*(3), 473–480.
- Klomek, B., Marrocco, A., Kleinman, F., Schonfeld, M., Irvin S Gould, & S, M. (2007). Bullying, depression, and suicidality in adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 46*(1), 40–49.
- Konishi, C., Hymel, S., Zumbo, B. D., & Li, Z. (2010). Do School Bullying and Student-Teacher Relationships Matter for Academic Achievement? A Multilevel Analysis. *Canadian Journal of School Psychology, 25*(1), 1–15.
- Kumpulainen, K., Räsänen, E., & Puura, K. (2011). Psychiatric disorders and the use of mental health services among children involved in bullying. *Aggressive Behavior, 27*, 102–110.
- Limber, S. (2014). Overview of Bullying and Victimization. In *Overview of Bullying and Victimization*.
- Mamun, A. A., M J O’Callaghan, Williams, G. M., & Najman, J. M. (2013). Adolescents bullying and young adults body mass index and obesity. *International Journal of Obesity, 37*, 1140–1146.

- Moon, B., Hwang, H.-W., & McCluskey, J. D. (2011). Causes of School Bullying: Empirical Test of a General Theory of Crime, Differential Association Theory, and General Strain Theory. *Crime & Delinquency*, 57(6), 849–877.
- Nansel, T., Overpeck, M., & Pilla, R. (2001). Bullying behaviors among US youth. *Journal of American Medical Association*, 285(16), 2094–2100.
- National Alliance on Mental Illness. (2013). *Mental Illness Facts and Numbers* (Vol. 1).
- O’Connell, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: insights and challenges for intervention. *Journal of Adolescence*, 22(4), 437–452.
- Olweus, D. (2003). Bullying at school: What we know and what we can do. *Psychology in the School*, 40(6).
- Organization, W. H. (2013). WHO Definition of key terms.
- Parault, S. J., Davis, H. A., & Pellegrini, A. D. (2007). The Social Contexts of Bullying and Victimization. *The Journal of Early Adolescence*, 27(2), 145–174.
- Price, M., Chin, M. a., Higa-McMillan, C., Kim, S., & Christopher Frueh, B. (2013). Prevalence and Internalizing Problems of Ethnoracially Diverse Victims of Traditional and Cyber Bullying. *School Mental Health*, 5(4), 183–191.
- Rigby, K. (2008). *Children and bullying: How parents and educators can reduce bullying at school*. *Journal of Personality and Social Psychology* (Vol. 17). Blackwell Publishing.
- Rigby, K., & Slee, P. (1994). the Peer Relations Questionnaire (Prq) for Children, 10–12.
- Rivers, I., Poteat, V. P., Noret, N., & Ashurst, N. (2009). Observing bullying at school: The mental health implications of witness status, 24(4), 211–223.
- Salmivalli, C. (2014). Participant Roles in Bullying: How Can Peer Bystanders Be Utilized in Interventions. *Theory Into Practice*, 53(4), 286–292.
- Salwina, W., Tan, S. M. K., Ruzyanei, N., Iryani, T., Syamsul, S., Aniza, A., & Zasmani, S. (2009). SCHOOL BULLYING AMONGST STANDARD SIX STUDENTS ATTENDING PRIMARY NATIONAL SCHOOLS IN THE FEDERAL TERRITORY OF KUALA LUMPUR: THE PREVALENCE AND ASSOCIATED SOCIO DEMOGRAPHIC FACTORS. *Malaysian Journal of Psychiatry*, 18(1), 1–8.
- Strohmeier, D., Fandrem, H., & Spiel, C. (2012). The need for peer acceptance and affiliation as underlying motive for aggressive behaviour and bullying others among immigrant youth living in Austria and Norway. *Anales de Psicología*, 28(3), 695–704.
- Susan M. Swearer. (2011). *Risk Factors for and Outcomes of Bullying and Victimization*. *Educational Psychology Papers and Publications*.
- Suzet L, Samarab, M., & Dieter W. (2013). Parenting behavior and the risk of becoming a victim and a bully victim : A meta-analysis study .pdf. *Child Abuse Neglect*, 37(12), 1–18.

- Swearer, S. M., Espelage, D. L., Vaillancourt, T., & Hymel, S. (2010). What Can Be Done About School Bullying? *Educational Researcher*, 39(1), 38–47.
- Waasdorp, T. E., Pas, E. T., O’Brennan, L. M., & Bradshaw, C. P. (2011). A Multilevel Perspective on the Climate of Bullying: Discrepancies Among Students, School Staff, and Parents. *Journal of School Violence*, 10(2), 115–132.
- Yen, C. F., Liu, T. L., Ko, C. H., Wu, Y. Y., & Cheng, C. P. (2014). Mediating effects of bullying involvement on the relationship of body mass index with social phobia, depression, suicidality, and self-esteem and sex differences in adolescents in Taiwan. *Child Abuse and Neglect*, 38(3), 517–526.