



Research Article

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Bullying Perpetration: The Role of Child Abuse and Self-Esteem among Secondary School Students in Ile-Ife

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Abstract

The purpose of this study was to examine the influence of child abuse and self-esteem on bullying perpetration among secondary school students in Ile-Ife, Osun State. A multi-stage sampling technique was used to select 324 participants. They responded to the child abuse questionnaire, the Rosenberg self-esteem scale and the Adolescent Peer Relations Instrument. Findings revealed that self-esteem did not predict the three forms of bullying. The experience of physical and emotional childhood abuse predicted verbal, social and physical bullying, while sexual childhood abuse predicted social and physical bullying. Based on these results, it was recommended that parents should be conscious of corporal punishment and other activities that could lead or reflect as abuse and neglect on their children.

Keywords: Child abuse, self-esteem, bullying perpetration

1. Introduction

Bullying has become very prevalent in schools and this act is generally characterised as deliberate and repetitive physical and psychological peer abuse which create a power imbalance between a bully and a victim (Olweus, 2010). The perpetrators and victims of bullying in early school age have a significant effect on both individuals involved when these occurrences are continuous with no reprimanding. For the perpetrators, the turnout is primarily seen in their engagement in anti-social vices (Naveed et al., 2020) and their perception of such behaviours as proper societal norms or acceptable ways of life. This gives them a sense of high-rating within their immediate environs. For the victims, it could lead to demoralised emotions, loss of efficacy towards significant aspects of life, and a negative perception of life in general. In some instance, it increases their tendencies to display similar act on others (Choi & Park 2018) or even decreases the value or desire that a child develop for education since it is experienced in school.

There is growing evidence that the experience of being bullied contributes to general mental health issues, including the internalization and externalization of symptoms (Klomek et al., 2015; Moore et al., 2017; Reijntjes et al., 2010; Schoeler et al., 2018; Singham et al., 2017; van Lier et al., 2012).

Youth who bully others and are bullied themselves face the most severe repercussions and are at higher risk of poor mental wellbeing and behavioural issues (Center for Disease Control, 2017). All these water down the expectations from educating a child and also affect the economic development of that child via an upsurge of oppressive and destructive activities on social-economic facilities.

About 70% prevalence of victimization through bullying was in multi-country research spanning North America, Europe, and Israel (Gupta et al., 2020). Based on a meta-analysis, the prevalence of bullying perpetration worldwide was 34.5%, and victimization was 36% (Modecki et al., 2014). On a ration basis, the worldwide prevalence of bullying is estimated to be slightly more than 1 in 3 students, aged between 13 to 15 years. This shows that bullying has become rampant among students at an alarming rate, which calls for detailed research into possible antecedence.

There are many factors associated with bullying behaviour, but numerous studies have reported associations between family risk factors and school bullying behaviours of children (de Vries et al., 2017). A variety of the family features are related to the perpetration of bullying, including the inclusion of family members in gangs, inadequate parental oversight, harmful family supervision, environment, parental dispute, domestic abuse, low contact between parents, lack of emotional support for parents, authoritarian upbringing, lack of discipline, and neglect by parents (Baldry, 2003; Barboza et al., 2009; Bowes et al., 2009; Cook et al., 2010; Espelage et al., 2000; Espelage & Swearer, 2010; Ferguson et al., 2009; Pepler et al., 2008).

Adverse childhood experiences have been linked to various negative physical and psychological outcomes throughout a person's life (Read & Bentall, 2012). Children abused at home are at an increased risk of bullying perpetration and bullying victimization (Hong et al., 2012; Shetgiri et al., 2012). Parenting has a significant impact on adolescent development, behaviour, and socialization outside the home (Engels et al., 2002; Roh & Sim, 2004). Also, adolescents tend to observe and model their parents' behaviour and socialization (Bandura, 1977). Some studies had considered the highlighted factors by looking at parenting style, attachment, and parents' experience of marital conflicts as a determining factor. However, few researchers had considered child abuse as a factor predisposing a child to bully.

Culturally wise, it is essential to note that the southwestern region of Nigeria has respect embedded into the culture. Younger children do not address the elder ones by their first names and are expected to obey instructions without question (Nwadiora, 1996). Some can even go as far as punishing a junior or beating them. This places the junior students at risk of being bullied since the seniors are ascribed the power to command and dictate. In Nigeria, where corporal punishment is common, it is tough to draw a line between discipline or punishment and child abuse. Though this culture is gradually eroding, its impact still reflects and determines the relationship between these concepts in the study setting. In some schools, students in the lower grades or classes are expected to defer to those in the upper grades and are not permitted to address their "seniors" (upper-grade students) by their first names, especially in the boarding houses. This cultural difference and the lack of school policy on bullying discourage reporting of bullying incidents and could also define the norm of bullying. However, in an increasingly globalized world, it beholds us to be aware and be proactive in responding to and addressing global concerns (Fenny, 2018).

Another factor that could predispose children to bully is self-esteem. It has been researched severally; however, the outcomes were equivocal. Some researchers reported increased bullying from those with low self-esteem, while others attributed high self-esteem to bullying. It is proper to replicate this finding among Nigerian samples to relate it to students' experience of child abuse. Although many researchers are now giving attention to bullying, not many studies are conducted on why students in Nigeria are involved in bullying perpetration. People are often ignorant of the effects of bullying on both the victims and the bullies. This research will shed more light on these issues. There are even fewer studies on the influences of child abuse or self-esteem on the perpetration of bullying.

2. Review of Literatures

Recently, there had been few indigenous researches that examined the role of childhood experiences on bullying. A study among 3197 Swedish adolescents indicated that the experience of physical, emotional home violence and witnesses of intimate partner violence was associated with both bullying victimisation and bullying perpetration (Lucas, 2016). Hebert et al.'s (2016) survey among high school students revealed that sexual abuse was mostly associated with bullying victimization. Also, physical childhood abuse had been established as a correlate of bullying victimization (Annerback et al., 2012). All forms of childhood abuse experiences were associated with both bullying victimization and perpetration in Wang et al.'s (2017) study. Malaeb et al. (2020) researched bullying victimization among adolescents in Lebanon. The findings revealed that psychological abuse, child physical abuse and neglect predicted bullying victimization positively.

In a review of research, Hong et al. (2012) considered potential mediators and moderators of the association between child maltreatment, and bullying perpetration and victimization. The research was aimed towards improving the understanding by investigating various potential mediating factors that explain this association and moderating factors that can exacerbate or reduce this association. Their research discovered that although child maltreatment or abuse can lead to bullying perpetration, children who experience child abuse are unlikely to become aggressive adults immediately (Grogan-Kaylor & Otis 2003; Moffitt & Caspi 2001). However, violence emerges in some children through complex pathways, in which a developing child's risk of violence increases with each additional exposure to violence or misconduct, as well as continued exposure to deviant role models (Bender, 2010; Moffitt & Caspi, 2001).

One of the mediating factors that link child abuse and bullying in their study was emotional dysregulation. This is the inability of an individual to recognise, understand, and modulate their emotions and to match their emotions to the reality of the situation around them (Gratz & Roemer, 2004; Keenan, 2000). Emotional dysregulation in children is recognised as a significant outcome of abuse (Gil et al., 2009).

A study by Gomez et al. (2018) showed a link between self-esteem and self-regulation. High self-esteem is said to improve coping mechanisms and higher standards for oneself (Baumeister et al., 2003). However, low self-esteem is associated with more aggressive behaviour (Donnellan et al., 2005) due to an individual's inability to regulate his/her emotions. It could be envisaged that a student with low self-esteem may likely get involved with the perpetration of bullying as a result of the tendency for aggressive behaviours. There are many studies considering self-esteem with bullying, however, few indigenous studies had associated child abuse with self-esteem.

Bankole and Arowosegbe (2014) carried out a study on the influence of child abuse on the self-esteem of secondary school students in Ekiti State, Nigeria. The study found that the combined influence of child abuse on self-esteem, including psychological, physical, and sexual abuse, will lead to a significant influence on individuals' self-esteem later in life. Based on the findings, the study also confirmed that neglect and abuse by parents or caregivers significantly impact a child's self-esteem.

From a different perspective, Rose et al. (2017) studied the relationship between bullying perpetration and self-esteem over some time. The research was conducted to ascertain if constructs of bully perpetration and self-esteem are metrically invariant and stable over time and if bully perpetration and self-esteem are directly and significantly related. They studied 971 students from a convenience sample of two rural middle schools in the Midwest United States. The study's findings suggest that bullying perpetration and self-esteem are not directly related and do not have a stable relationship.

On a contrary, Darjan et al. (2020), and Juvonen and Graham (2004) said inflated self-esteem results in bullying perpetration, while Swearer et al., 2015 believe that negative self-concept and self-esteem are the reason behind bullying perpetration.

Clear indications show that several researchers had identified the link between various forms of abuse and bullying, however, little or no indigenous study had taken cognizance of this. The varying

cultural perspective and sense of display of respect for older persons in Nigeria make it important to replicate these among adolescents in Nigeria. In addition, concerns had always been on managing those that are victims of bullying, but an effort should also be channelled towards the perpetrators as prevention seems a better option than remedy. A better understanding of the perpetrators of bullying will pave way for the management and prevention of such acts among adolescents, while also limiting the chances of them escalating into societal disapproved public behaviours like thuggery, cultism, fraudulent/ criminal act, sadistic tendencies of kidnapping, suicide bombing and militancy.

The quest to address the aforementioned and the role of self-esteem of such individuals led to the following hypotheses.

1. Self-esteem and childhood abuse (physical, emotional and sexual) will significantly predict verbal bullying perpetration among secondary school students.
2. Self-esteem and childhood abuse (physical, emotional and sexual) will significantly predict social bullying perpetration among secondary school students.
3. Self-esteem and childhood abuse (physical, emotional and sexual) will significantly predict physical bullying perpetration among secondary school students.
4. The perpetration of bullying by secondary school students will be significantly predicted by self-esteem and childhood experiences of abuse (physical, emotional and sexual).

3. Methods

A cross-sectional research design involving the survey method was utilised. The participants for the research were secondary school students in classes ranging from JSS₂ to SSS₂ classes. The formula by Krejcie and Morgan (1970) for determining the sample size of an unknown population was adopted, and a minimum sample size of 348 was derived. This was approximated to 350 samples and utilised for the research purpose. After data collection, 324 sampled data were found valid for the research purpose. The socio-demographics of the sampled participants were summarised in Table 1.

Table 1: Socio-Demographic Characteristics of Participants

Variables		Number	%
Sex	Male	129	39.8
	Female	195	60.2
	Total	324	100.0
Class	JSS ₂	86	26.5
	JSS ₃	64	19.8
	SSS ₁	97	29.9
	SSS ₂	77	23.8
	Total	324	100.0
Boarding Status	Day Student	309	95.4
	Border	15	4.6
	Total	324	100.0
Parent's Marital Status	Single Parent	28	8.6
	Separated	16	4.9
	Married and Living Together	280	86.4
	Total	324	100.0
Who do you live with	Mother	36	11.1
	Father	44	13.6
	Both Mother And Father	230	71.0
	Relatives	11	3.4
	Guardians	3	.9
	Total	324	100.0
Age ranges between 10 - 18 (Mean=13.69 ; SD= 1.69)			

It was observed that 39.8% of the participants were male, while 60.2% were females. Their ages range between 10 and 18 years (Mean=13.69; SD= 1.69). Those in JSS2 were 26.5%, 19.8% were in JSS3, 29.9% were in SSS1, while 23.8% were in SSS2. The boarding status was such that 95.4% were day students, while very few were boarders (4.6%). Other possible determining factors were parents' marital status, and it was noted that 8.6% were single parents, 4.9% were separated, while a majority (86.4%) were married and living together. Lastly noted was how the child presently lived with and it was indicated that 11.1% lived with only the mother, 13.6% lived with only the father, 71% lived with both parents, 3.4% lived with relatives, while 0.9% lived with some form of a guardian.

4. Sampling Technique

A multi-stage sampling procedure was adopted. Firstly, a stratified sampling technique was utilised to categorise secondary schools in the study location into public and private secondary schools. Furthermore, random sampling was then adopted to select two public and two private schools within the setting. This was done through balloting. With a sample size of 350, a proportionate sampling technique was adopted to distribute the samples into the various selected schools based on their population. Then the classes of JSS 2 to SSS2 were purposively selected leaving JSS1 and SSS3 out. The JSS 1 class would not likely perpetrate bullying since they are new in the system and the last position in terms of seniority. The SSS3 students had lots of authorisation within the school system, which could be assumed or confused with bullying perpetration. Proportionate sampling was again adopted to determine the number of questionnaires distributed into the selected four classes (JSS2, JSS3, SSS1 and SSS2). Lastly, simple random sampling was further utilised to select students within each class to participate in the study.

4.1 Instruments

For data collection, a questionnaire containing statements eliciting information on the social demographics of the participants and three psychological scales was employed. The social-demographic items include; age, sex, class, boarding status, parent's marital status and who they lived with. The psychological scales that made up of the following;

Child Abuse - This was measured using a child abuse 13-item scale by Ahad and Shah (2019) used to assess the severity of child abuse. Child Abuse Questionnaire is measured on a 7-point Likert scale ranging from 1-Never to 7-Every time. It is divided into three subscales, including; physical abuse (4 items), emotional abuse (5 items) and sexual abuse (4 items). Sample items include, "I used to get physical injuries which lasted for days" – physical abuse; "I was ignored by my parents/caregivers" – emotional abuse, and "An adult used to touch me in a way which I did not like" - sexual abuse. The scale was interpreted using the mean scores, and individuals that measured above the mean value have a high abuse level. The construct reliability for each of the subscales include; physical (0.77), emotional (0.85) and sexual abuse (0.88). The values are well above Peter's (1979) minimum threshold of 0.60 to 0.70, indicating that construct reliability is high and satisfactory (Ahad & Shah, 2019). The researcher's obtained reliability for the construct's composite score was Chronbach's alpha coefficient value of 0.84, and coefficient values ranging between .70 and .81 for the dimensions.

Self-esteem - The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used in assessing an individual's self-esteem. It is a 10-item scale that assesses overall self-worth by assessing both positive and negative thoughts about oneself. The scale is thought to be one-dimensional. All items are graded on a 4-point Likert scale, with answers ranging from strongly disagree - 1 to strongly agree - 4. Sample items include; "On the whole, I am satisfied with myself". The total score ranges from 10 to 40, with lower numbers indicating low self-esteem. The scale generally has high reliability: test-retest correlations are typically in the range of .82 to .88, and Cronbach's alpha for various samples are in the range of .77 to .88 (Blascovich and Tomaka, 1993, Rosenberg, 1986). The present study found a

Cronbach’s alpha reliability coefficient value of .74 for the scale.

Bullying Behaviour - The Adolescent Peer Relations Instrument (APRI) developed by Parada (2000) was adapted. It has two sub-sections; one that measures bullying perpetration, the other measures bullying victimization. However, only the section that measures bullying perpetration was used. The APRI assesses three forms of bullying behaviours (physical, verbal, and social). There were a total of 18 items used to assess bullying perpetration. All items were scored on a six-point Likert scale (1 = Never to 6 = Everyday). Sample items include; “Pushed or shoved a student” – physical; “Made jokes about a student” – verbal; “Got other students to ignore a student” – social. Responses closer to 1 indicated a low level of bullying, but scores closer to 6 indicated a high level of bullying. Furthermore, individuals that score below the mean indicated low perpetration of bullying. Parada (2000) found good internal consistency ($\alpha = .93$) for the instrument, and a Cronbach alpha of .95 was found by Rawlings (2016). The Bullying factors (Bullying Physical, Bullying Verbal, Bullying Social) had adequate alpha coefficients. Cronbach’s alpha reliabilities ranged from good to excellent for the three bullying factors: physical, verbal and social (alpha coefficients .82 to .92) (Newey 2016). A Cronbach’s alpha coefficient of 0.91 was found for the 18-item scale in the current research, while that of the dimensions ranged between .85 and .92.

5. Data Analysis

Existing relationships among study variables were established using Pearson Product Moment Correlation while four 3-step hierarchical regression analyses were utilised to test the formulated hypotheses.

6. Results

Table 2: Multiple Correlation Analysis showing relationships among the Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Sex	1												
2. Age	.13*	1											
3. Class	.06	.59**	1										
4. Boarding Status	.06	-.06	.04	1									
5. Self-esteem	-.12	-.12*	.02	.07	1								
6. Physical Abuse	-.06	.16**	-.06	-.07	-.12*	1							
7. Emotional Abuse	-.10	.14**	.00	-.03	-.09	.57**	1						
8. Sexual Abuse	-.02	.18**	-.02	.02	-.11	.34**	.37**	1					
9. Child Abuse	-.09	.19**	-.03	-.04	-.12	.81**	.90**	.62**	1				
10. Verbal Bullying	-.08	.11	.16**	.13*	.04	.31**	.43**	.17**	.41**	1			
11. Social Bullying	.03	.09	.08	.17*	-.09	.28**	.29**	.25**	.35**	.70**	1		
12. Physical Bullying	-.05	.11	.10	.03	-.05	.29**	.33**	.25**	.37**	.74**	.75**	1	
13. Bullying Perpetration	-.04	.11	.13*	.11	-.03	.33**	.39**	.24	.42	.91**	.90**	.91**	1
Mean	-	13.69	-	-	29.28	6.70	9.26	4.82	20.78	10.85	8.89	9.12	28.85
SD	-	1.69	-	-	4.02	3.73	5.52	2.65	9.62	5.29	4.77	4.35	13.08

Note: ** $p < .01$, * $p < .05$, $N=324$, Sex was coded male=1, female=2; Class was coded JSS2=1, JSS3=2, SSS1=3, SSS2=4; Boarding status was coded day students=1, boarders=2.

Self-esteem did not correlate significantly with bullying perpetration [$r(322) = -.03$, $p > .05$], neither did it correlate with any of its dimensions. However, childhood experience of abuse was positively and significantly related to bullying perpetration [$r(322) = .42$, $p < .01$]. Also, a positive relationship was observed between childhood abuse and verbal bullying [$r(322) = .41$, $p < .01$], social bullying [$r(322) = .35$, $p < .01$] and physical bullying [$r(322) = .37$, $p < .01$]. In a similar context, the dimensions of childhood experience of abuse (physical, emotional and sexual) were all positively and significantly

related to verbal, social, physical bullying and bullying perpetration generally. This implied that the different dimension of bullying perpetration increases among students just as there is an increase in all the identified forms of childhood experience of abuse they were exposed to.

Sex was not significantly related to bullying perpetration [$r(322) = -.04, p > .05$]. In quite different forms, the relationship between students' age and bullying perpetration was positively significant [$r(322) = .11, p < .05$]. This implied that older students had the tendencies to engage more in bullying behaviour compared to younger ones. Corroborating the outcome with age, students' class had significant positive relationship with bullying perpetration [$r(322) = .13, p < .05$]. This means that the higher class students attain in school, the more likely they engage in bullying behaviours. Boarding status had no significant relationship with bullying perpetration [$r(322) = .11, p > .05$], however, two of its dimensions were significantly related to it. These were verbal bullying [$r(322) = .13, p < .05$] and social bullying [$r(322) = .17, p < .05$], and the findings were such that boarders perpetrated more of verbal and social bullying compared to 'day-students'.

The association between self-esteem and childhood abuse was negatively significant [$r(322) = -.12, p < .05$]. This implied that when childhood experience of abuse is high, students tend to have low self-esteem. Further indications showed that the observed significant relationship between self-esteem and child abuse could be related to the experience of physical abuse. This was due to the significant association between self-esteem and physical abuse [$r(322) = -.12, p < .05$], while emotional abuse [$r(322) = -.09, p > .05$] and sexual abuse [$r(322) = -.11, p > .05$] had no significant association with students' self-esteem.

Table 3: Multiple Hierarchical Regression showing Predictions on Verbal Bullying

Predictors	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
<i>Personal Characteristics</i>						
Sex	-.09	-1.69	-.09	-1.62	-.03	-.61
Age	.03	.45	.04	.53	-.08	-1.29
Class	.15	2.21*	.15	2.13*	.22	3.51**
<i>Predictors</i>						
Self-esteem			.03	.60	.07	1.44
Physical Childhood Abuse					.14	2.26*
Emotional Childhood Abuse					.35	5.68**
Sexual Childhood Abuse					.02	.37
R	.19		.19		.48	
R ²	.04		.04		.23	
ΔR^2	-		.00		.19	
df	3, 320		4, 319		7, 316	
F	3.91**		3.02*		13.45**	
ΔF	-		.37		26.40**	

Note: ** $p < .01$, * $p < .05$, $N=324$, Sex was coded male=1, female=2; Class was coded JSS2=1, JSS3=2, SSS1=3, SSS2=4

In Table 3, a three-step hierarchical regression model was conducted with personal characteristics that could influence the hypothesized associations kept under control in the first step. It was indicated that sex ($\beta = -.09, t = -1.69, p > .05$) and age ($\beta = .03, t = .45, p > .05$) did not predict verbal bullying, however, class significantly predicted verbal bullying such that students in higher classes perpetrated bullying more than those in lower classes. The personal factors contributed a significant variance of 4% to observed changes in verbal bullying among students [$R = .19, R^2 = .04; F(3, 320) = 3.91, p < .01$]. In the second step of the hierarchy, self-esteem was added and the result showed that verbal bullying perpetration was not predicted by self-esteem of the students ($\beta = .03, t = .60, p > .05$). Thus, there was no significant contribution in step 2 [$R^2 = .04, \Delta R^2 = .00; \Delta F = .37, p > .05$].

In step 3, childhood experiences of abuse were added and it was noted that verbal bullying increases with significant increase in physical abuse ($\beta = .14, t = 2.26, p < .05$) and emotional abuse ($\beta = .35, t = 5.68, p < .01$). Sexual abuse was not a significant predictor of verbal bullying ($\beta = .02, t = .37, p > .05$). Jointly, the variables contributed a significant variance of 23% to the observed variance in verbal bullying [$R = .48, R^2 = .23; F(7, 316) = 13.45, p < .01$]. This meant that childhood abuse accounted for 19% variance in students' perpetration of verbal bullying act [$R^2 = .23, \Delta R^2 = .19; \Delta F = 26.40, p < .01$].

Table 4: Multiple Hierarchical Regression showing Predictions on Social Bullying

Predictors	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
<i>Personal Characteristics</i>						
Sex	.02	.29	.01	.13	.05	.96
Age	.07	.95	.05	.71	-.07	-1.06
Class	.04	.53	.05	.70	.13	2.00
<i>Predictors</i>						
Self-esteem			-.09	-1.50	-.05	-.89
Physical Childhood Abuse					.16	2.49*
Emotional Childhood Abuse					.15	2.33*
Sexual Childhood Abuse					.15	2.60*
R	.10		.13		.37	
R ²	.01		.02		.14	
ΔR^2	-		.01		.13	
df	3, 320		4, 319		7, 316	
F	.99		1.30		7.20**	
ΔF	-		2.24		14.84**	

Note: ** $p < .01$, * $p < .05$, $N=324$, Sex was coded male=1, female=2; Class was coded JSS1=1, JSS2=2, SSS1=3, SSS2=4

Three steps hierarchical regression model was also conducted to test the predictions on social bullying and it was observed that all the considered personal characteristics entered in the first step of the model were not predictors of social bullying, thus they had no significant influence on social bullying [$F(3, 320) = .99, p > .05$].

Self-esteem was added in the second model and it was found that self-esteem was not a significant predictor of social bullying ($\beta = -.09, t = -1.50, p > .05$). In the third model, the three forms of childhood abuse considered were added and the result revealed that increase in physical childhood abuse led to higher perpetration of social bullying ($\beta = .16, t = 2.49, p < .05$). Also, perpetration of social bullying increases with increase in emotional childhood abuse ($\beta = .15, t = 2.33, p < .05$) and sexual childhood abuse ($\beta = .15, t = 2.60, p < .05$). Jointly, a variance of 14% to the observed in social bullying [$R = .37, R^2 = .14; F(7, 316) = 7.20, p < .01$]. This meant that childhood abuse accounted for 13% variance in students' perpetration of social bullying [$R^2 = .14, \Delta R^2 = .13; \Delta F = 14.84, p < .01$].

Table 5: Multiple Hierarchical Regression showing Predictions on Physical Bullying

Predictors	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
<i>Personal Characteristics</i>						
Sex	-.07	-1.16	-.07	-1.24	-.02	-.42
Age	.09	1.25	.08	1.10	-.05	-.65
Class	.02	.73	.06	.82	.14	2.05
<i>Predictors</i>						
Self-esteem			-.05	-.80	-.01	-.15
Physical Childhood Abuse					.13	2.06*

Predictors	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
Emotional Childhood Abuse					.21	3.20**
Sexual Childhood Abuse					.14	2.40*
R	.13		.14		.39	
R ²	.02		.02		.15	
ΔR^2	-		.00		.13	
df	3, 320		4, 319		7, 316	
F	1.88		1.57		8.09**	
ΔF	-		.64		16.48**	

Note: ** p < .01, * p < .05, N=324, Sex was coded male=1, female=2; Class was coded JSS2=1, JSS3=2, SSS1=3, SSS2=4

The findings on physical bullying were quite similar to that of social bullying such that all the considered personal characteristics entered in the first step of the model were not predictors of physical bullying [F(3, 320)= 1.88, p > .05]. This means that sex, age and class were not significant predictors of physical bullying perpetration.

Adding self-esteem in the second model revealed that self-esteem was not a significant predictor of physical bullying ($\beta = -.05$, $t = -.80$, $p > .05$). The three forms of childhood abuse were added in the third model and it was observed that all three forms of childhood abuse [physical abuse ($\beta = .13$ $t = 2.06$, $p < .05$), emotional abuse ($\beta = .21$ $t = 3.20$, $p < .01$) and sexual abuse ($\beta = .14$ $t = 2.40$, $p < .05$)] led to higher perpetration of physical bullying with 15% significant variance observed [R= .39, R²= .15; F(7, 316)= 8.09, $p < .01$]. This meant that childhood abuse accounted for 13% variance in students perpetration of physical bullying [R²= .15, $\Delta R^2 = .13$; $\Delta F = 16.48$, $p < .01$].

Table 6: Multiple Hierarchical Regression showing Predictions on Bullying Perpetration Generally

Predictors	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
<i>Personal Characteristics</i>						
Sex	-.05	-.96	-.06	-1.01	-.00	-.02
Age	.07	.94	.06	.84	-.08	-1.14
Class	.09	1.33	.10	1.38	.18	2.84
<i>Predictors</i>						
Self-esteem			-.03	-.58	.01	.18
Physical Childhood Abuse					.16	2.55*
Emotional Childhood Abuse					.27	4.23**
Sexual Childhood Abuse					.11	1.95
R	.15		.14		.45	
R ²	.02		.02		.20	
ΔR^2	-		.00		.18	
df	3, 320		4, 319		7, 316	
F	2.28		1.79		11.12**	
ΔF	-		.33		23.07**	

Note: ** p < .01, * p < .05, N=324, Sex was coded male=1, female=2; Class was coded JSS2=1, JSS3=2, SSS1=3, SSS2=4

Consideration of bullying in whole using the composite score revealed that sex ($\beta = -.05$, $t = -.96$, $p > .05$), age ($\beta = .07$, $t = .94$, $p > .05$), and class ($\beta = .09$, $t = 1.33$, $p > .05$), were not significant predictors. This means that the personal characteristics were just significantly related, but not determinants of changes in the perpetration of bullying. Also, self-esteem added in the second step was not a significant predictor ($\beta = -.03$, $t = -.58$, $p > .05$). The third model presents the influence of childhood abuse. It was noted that bullying increases with physical abuse ($\beta = .16$, $t = 2.55$, $p < .05$) and emotional

abuse ($\beta = .27, t = 4.23, p < .01$). However, sexual abuse ($\beta = .11, t = 1.95, p > .05$) was not a significant predictor of bullying perpetration. The variables joint contributed 20% variance to the observed variance in bullying [$R = .45, R^2 = .20; F(7, 316) = 11.12, p < .01$]. Specifically, childhood abuse (physical and emotional) contributed a variance of 18% to the total variance observed in bullying [$R^2 = .20, \Delta R^2 = .18; \Delta F = 23.07, p < .01$].

7. Discussion

This study investigated the influence of child abuse and self-esteem on bullying perpetration among secondary school students in Ile-Ife, Osun State. Three forms of abuse and three forms of bullying were considered. The three forms of abuse were physical, emotional and sexual, while the three forms of bullying were verbal, social and physical bullying.

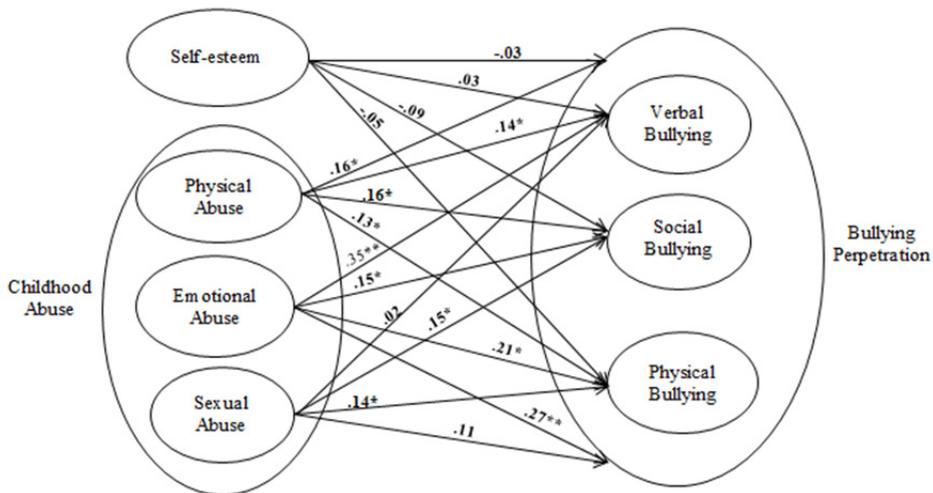


Figure 1: Model Illustration showing the association among the variables

The role of self-esteem and the various forms of childhood abuse were tested on tendencies to perpetrate verbal forms of bullying, while the social demographics that could intervene with the research outcome were controlled for in the first step of the analysis. The findings indicated that students' class was reflected as a possible determinant of verbal abuse. However, self-esteem was not a predictor of the perpetration of verbal abuse. Further observations revealed that the experience of physical and emotional childhood abuse led to an increase in the perpetration of verbal abuse, while sexual childhood abuse was not a significant predictor. Previous research had associated various forms of abuse with bullying and in most instances with bully victimization, but little had considered this association among bullying perpetrators and its various forms. The result was however consistent with the works of Lucas (2016) that found a positive association between bullying and the experience of both physical and emotional abuse. Although, Hebert et al (2016) found an association between sexual abuse and bullying victimization, but there is no established link between sexual abuse and the perpetration of bullying. Most often, sexual childhood abuse leads to psychological problems when prolonged and redefined children's personality and social perception (Shrivastava et al., 2017; Wohab & Akhter, 2010). Verbal bullying has to do with the repeated utilisation of hurtful words on someone and this could be well carried out by individuals that easily engage in social interactions. Since sexual abuse elicits poor social relations and low self-rating, this could be a reason why the

experience of sexual form of abuse does not lead to the perpetration of verbal bullying.

The finding on social bullying and self-esteem was similar to that of verbal bullying in the sense that there was no significant association between them. The result further showed a significant prediction of social bullying by physical, emotional and sexual childhood abuse. The perpetration of social bullying involves the utilisation of peers and significant others in intimidating, making fun of or insulting another adolescent repeatedly. There are tendencies that individuals exposed to the various observed forms of abuse might develop poor emotional concern for others thus having higher chances of perpetrating social forms of bullying.

The perpetration of physical bullying was not predicted by self-esteem, but all forms of childhood abuse predicted it. This meant that students exposed to any of the identified forms of abuse may likely involve in bullying others physically. Physical bullying is the extreme form of bullying and anybody that involves in verbal or social may not necessarily end up engaging in physical except if the stimulating factors continue to trigger the act and dehumanization within such person. The psychological and emotional implications of abuse are dependent on the duration and relationship that the individual has with the abusers. There are chances that students with long experience of any of the forms of childhood abuse may likely perpetrate physical bullying (although, this was not directly tested).

As indicated in the forms of bullying, the overall measure of bullying was also not predicted by self-esteem. This contradicts some of the previous outcomes.

Juvonen and Graham (2004) and Darjan et al. (2020) found inflated self-esteem results in bullying perpetration. Also, Swearer et al. (2015) believe that negative self-concept and self-esteem are the reason behind bullying perpetration. On the contrary, Rose et al. (2017) observed that bullying perpetration and self-esteem do not have a stable relationship. The variances in these results could be due to the fact that bullies could be students with high self-esteem while others may not. There are notable variances in the behaviours of several bullies as some bully perpetrators are socially maladjusted and others are socially skilled (Rodkin et al., 2015). Bully perpetration may be reinforced in each case through social interactions and environmental conditions, further conditioning youth to engage in bully perpetration.

In general, sexual abuse does not predict bullying perpetration; however, the most influential was emotional abuse. This breaks the child's emotional values for others, decreases their perception of human worth and humanization generally. Thus increasing their chances to place little concern about the wellbeing of others, see broken emotions as a norm and would enjoy the fun with the involvement in activities that will put others in such situations. This aligns with the explanations made from attachment theory that poor attachment style with caregivers could reflect children's engagement in bullying (Nikiforou et al., 2013).

It should be noted that child abuse and self-esteem had a significant negative correlation. This means that children who had been abused had lower self-esteem. Further observations indicated that self-esteem and childhood abuse jointly predicted the perpetration of bullying among secondary school students. It could also be concluded that since child abuse had a negative correlation with self-esteem, children who have been abused will have a lower-esteem and also have the tendency to become bully perpetrators. Self-esteem on its own does not determine the tendencies to involve in bullying perpetration, however, it serves as a boost for victims of childhood abuse to engage in bullying perpetration. Child abuse is known to cause low self-concept in children who develop a negative perspective of themselves. This means a cycle is developed where children who are abused and have low self-esteem as the tendency to perpetrate bullying seems higher in them.

Conclusively, childhood experience turned out as a significant determinant of bullying perpetration among students. There are different forms of abuse with varying experiences. It is thus recommendable to parents and caregivers in this part of the world where corporal punishment is encouraged to be conscious of actions that could reflect emotional abuse, especially on their wards. There is also the need for increased sensitisation on the impact of childhood abuse on a child's development among parents. In most situations, less attention is given to the wards as a result of

work engagement to meet up with societal and family demands, thus these children are prone to one form of abuse (either directly or not) and leading to a decrease in their attachment pattern, emotional concern and consciousness for humanity. This entire factor balls down to increase tendencies for the perpetration of bullying where the chances are visible. Caretakers and parents should be educated on other effective methods of discipline that do not involve any form of aggression or violence. There is also a need for policy enforcement and sensitization from the government to address any form of child abuse within the society. Limiting the findings of the present study is the sample population. A more generalized population cutting across states and geographical locations in Nigeria would enhance the capabilities to generalize the outcome within the country. Further studies could also look into the sub-dimensions of self-esteem and consider self-concept as a factor in the better understanding of the role they play in the relationship between abuse and bullying. There is need to also explore the impact of peer influence, reprimanding school rules and possible reinforcing factors that enhance bullying among adolescents. These are possible school environmental factors that could contribute towards, and enhance the act of bullying among students. The adoption of exploratory and qualitative methods in such research will avail such studies privileges to impact an applied form.

8. Disclosure of Conflict of Interest

This research was conducted with the consensus of all researchers involved and it was with a unified decision that it is been processed for publication consideration within this journal. There is no known conflict of interest on the said article. The research was self-sponsored and not funded by any organisation or body.

References

- Ahad, R., & Shah, S. A. (2019). Psychometric properties of child abuse questionnaire. *International Journal of Research in Engineering, IT and Social Sciences*, 9(1), 42-47.
- Annerbäck, E. M., Sahlqvist, L., Svedin, C. G., Wingren, G., & Gustafsson, P. (2012). Child physical abuse and concurrence of other types of child abuse in Sweden-Associations with health and risk behaviors. *Child Abuse Neglect*, 36(7-8), 585-595.
- Baldry, A. C. (2003). Bullying in schools and exposure to domestic violence. *Child Abuse & Neglect*, 27(7), 713-732. [https://doi.org/10.1016/s0145-2134\(03\)00114-5](https://doi.org/10.1016/s0145-2134(03)00114-5)
- Bandura, Albert (1977). Social learning theory. *Englewood Cliffs, NJ: Prentice Hall*
- Bankole, E. T., & Arowosegbe, C. K. (2014). Effect of child abuse on Self-Esteem among secondary schools students in ekiti state (case study of iworoko community high school). *International Journal of Humanities Social Sciences and Education*, 1(12), 133-140.
- Barboza, G. E., Schiamberg, L. B., Oehmke, J., Korzeniewski, S. J., Post, L. A., & Heraux, C. G. (2009). Individual characteristics and the multiple contexts of adolescent bullying: An ecological perspective. *Journal of Youth and Adolescence*, 38(1), 101-121. <https://doi.org/10.1007/s10964-008-9271-1>
- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high Self-Esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4(1), 1-44. <https://doi.org/10.1111/1529-1006.01431>
- Bender, K. (2010). Why do some maltreated youth become juvenile offenders? *Children and Youth Services Review*, 32(3), 466-473. <https://doi.org/10.1016/j.childyouth.2009.10.022>
- Blascovich, J., & Tomaka, J. (1993). Measures of Self-Esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of Personality and Social Psychological Attitudes* (3rd ed., pp. 115-160). Ann Arbor: Institute for Social Research. doi.org/10.1016/B978-0-12-590241-0.50008-3
- Bowes, L., Arseneault, L., Maughan, B., Taylor, A., Caspi, A., & Moffitt, T. E. (2009). School, neighborhood, and family factors are associated with children's bullying involvement: A nationally representative longitudinal study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 48(5), 545-553. <https://doi.org/10.1097/chi.0b013e31819cb017>

- Center for Disease Control, National Center for Injury Prevention And Control. (2017). Preventing bullying [violence Prevention] Injury Center|CDC. Center for Disease Control and Prevention. Retrieved from: <https://www.cdc.gov/violenceprevention/youthviolence/bullyingresearch/fastfact.html>.
- Choi, B., & Park, S. (2018). Who becomes a bullying perpetrator after the experience of bullying victimization? The moderating role of self-esteem. *Journal of Youth and Adolescence*, 47(11), 2414–2423. <https://doi.org/10.1007/s10964-018-0913-7>
- Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E., & Sadek, S. (2010). Predictors of bullying and victimization in childhood and adolescence: A meta-analytic investigation. *School Psychology Quarterly*, 25(2), 65–83. <https://doi.org/10.1037/a0020149>
- Darjan, I., Negru, M., & Dan, I. (2020). Self-esteem – the decisive difference between bullying and asertiveness in adolescence? *Journal of Educational Sciences*, 41(1), 19–34. <https://doi.org/10.35923/jes.2020.1.02>
- de Vries, E. E., Verlinden, M., Rijlaarsdam, J., Jaddoe, V. W. V., Verhulst, F. C., Arseneault, L., & Tiemeier, H. (2017). Like father, like child: Early life family adversity and children's bullying behaviors in elementary school. *Journal of Abnormal Child Psychology*, 46(7), 1481–1496. <https://doi.org/10.1007/s10802-017-0380-8>
- Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., Moffitt, T. E., & Caspi, A. (2005). Low Self-Esteem is related to aggression, antisocial behavior, and delinquency. *Psychological Science*, 16(4), 328–335. <https://doi.org/10.1111/j.0956-7976.2005.01535.x>
- Engels, R. C. M. E., Deković, M., & Meeus, W. (2002). Parenting practices, social skills and peer relationships in adolescence. *Social Behavior and Personality: An International Journal*, 30(1), 3–17. <https://doi.org/10.2224/sbp.2002.30.1.3>
- Espelage, D. L., & Swearer, S. M. (2010). *Bullying in North American schools* (2nd ed.). Routledge.
- Espelage, D. L., Bosworth, K., & Simon, T. R. (2000). Examining the social context of bullying behaviors in early adolescence. *Journal of Counseling & Development*, 78(3), 326–333. <https://doi.org/10.1002/j.1556-6676.2000.tb0914.x>
- Fenny, O. A. (2018). *Bullying in Nigerian Secndary Schools: A Test of Gottfredson and Hirschi's General Theory of Crime* (Thesis). The University of Texas at Dallas. <https://Utd-Ir.Tdl.Org/Bitstream/Handle/10735.1/5845/Etd-5608-012-Fenny-7868.84.Pdf?Sequence=6&lsallowed=Y>
- Ferguson, C. J., San Miguel, C., Garza, A., & Jerabeck, J. M. (2009). A longitudinal test of video game violence influences on dating and aggression: A 3-year longitudinal study of adolescents. *Journal of Psychiatric Research*, 46(2), 141–146. <https://doi.org/10.1016/j.jpsychires.2011.10.014>
- Gil, A., Gama, C. S., de Jesus, D. R., Lobato, M. I., Zimmer, M., & Belmonte-de-Abreu, P. (2009). The association of child abuse and neglect with adult disability in schizophrenia and the prominent role of physical neglect. *Child Abuse & Neglect*, 33(9), 618–624. <https://doi.org/10.1016/j.chiabu.2009.02.006>
- Gomez, T., Quinones-Camacho, L., & Davis, E. (2018). Building a Sense of Self: The Link between Emotion Regulation and Self-Esteem in Young Adults. *UC Riverside Undergraduate Research Journal*, 12(1), 37–49. <https://doi.org/10.5070/RJ5121039160>
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41–54. <https://doi.org/10.1023/b:joba.0000007455.08539.94>
- Grogan-Kaylor, A., & Otis, M. D. (2003). The effect of childhood maltreatment on adult criminality: A tobit regression analysis. *Child Maltreatment*, 8(2), 129–137. <https://doi.org/10.1177/1077559502250810>
- Gupta, M., Rana, M., Malhi, P., Grover, S., & Kaur, M. (2020). Prevalence and correlates of bullying perpetration and victimization among school-going adolescents in Chandigarh, North India. *Indian Journal of Psychiatry*, 62(5), 531.
- Hébert, M., Cénat, J. M., Blais, M., Lavoie, F., & Guerrier, M. (2016). Child sexual abuse, bullying, cyberbullying, and mental health problems among high schools students: a moderated mediated model. *Depress Anxiety*, 33(7), 623–629.
- Hong, J. S., Espelage, D. L., Grogan-Kaylor, A., & Allen-Meares, P. (2012). Identifying potential mediators and moderators of the association between child maltreatment and bullying perpetration and victimization in school. *Educational Psychology Review*, 24(2), 167–186. <https://doi.org/10.1007/s10648-011-9185-4>
- Juvonen, & Graham. (2004). Research-based interventions on bullying. Bullying implications for the classroom. *Educational Psychology*, 229–255. <https://doi.org/10.1016/B978-012617955-2/50016-3>
- Keenan, K. (2000). Emotion dysregulation as a risk factor for child psychopathology. *Clinical Psychology: Science and Practice*, 7(4), 418–434. <https://doi.org/10.1093/clipsy.7.4.418>

- Klomek, A. B., Sourander, A., & Elonheimo, H. (2015). Bullying by peers in childhood and effects on psychopathology, suicidality, and criminality in adulthood. *The Lancet Psychiatry*, 2(10), 930–941. [https://doi.org/10.1016/s2215-0366\(15\)00223-0](https://doi.org/10.1016/s2215-0366(15)00223-0)
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
- Lucas, S., Jernbro, C., Tindberg, Y., & Janson, S. (2016). Bully, bullied and abuse. Associations between violence at home and bullying in childhood. *Scand Journal of Public Health*, 44(1), 27–35. doi: 10.1177/1403494815610238.
- Malaeb, D., Awad, E., Haddad, C., Salameh, P., Sacre, H., Akel, M., Soufia, M., Hallit, R., Obeid, S., & Hallit, S. (2020). Bullying victimization among Lebanese adolescents: The role of child abuse, Internet addiction, social phobia and depression and validation of the Illinois Bully Scale. *BMC Pediatr* 20, 520. <https://doi.org/10.1186/s12887-020-02413-1>.
- Modecki, K. L., Minchin, J., Harbaugh, A. G., Guerra, N. G., & Runions, K. C. (2014). Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health*, 55(5), 602–611
- Moffitt, T. E., & Caspi, A. (2001). Childhood predictors differentiate life-course persistent and adolescence-limited antisocial pathways among males and females. *Development and Psychopathology*, 13(2), 355–375. <https://doi.org/10.1017/s0954579401002097>
- Moore, S. E., Norman, R. E., Suetani, S., Thomas, H. J., Sly, P. D., & Scott, J. G. (2017). Consequences of bullying victimization in childhood and adolescence: A systematic review and meta-analysis. *World Journal of Psychiatry*, 7(1), 60–76. doi: 10.5498/wjp.v7.i1.60.
- Naveed, S., Waqas, A., Shah, Z., Ahmad, W., Wasim, M., Rasheed, J., & Afzaal, T. (2020). Trends in Bullying and Emotional and Behavioral Difficulties Among Pakistani Schoolchildren: A Cross-Sectional Survey of Seven Cities. *Frontiers in Psychiatry*, 10. <https://doi.org/10.3389/fpsy.2019.00976>
- Newey (2016). *Bullying embraces the virtual world: elucidating the psychosocial determinants and correlates of traditional vs. Cyberbullying types*. School of social sciences and psychology western Sydney University. <https://researchdirect.westernsydney.edu.au/islandora/object/uws:38439/datastream/pdf/view>
- Nwadiora, E. (1996). Therapy with African families. *Western Journal of Black Studies*. Published. <https://eric.ed.gov/?id=EJ550197>
- Olweus, D. (2010). Understanding and researching bullying: Some critical issues. *Handbook of bullying in schools: An International Perspective*. 9–33.
- Parada, R. (2000). Adolescent Peer Relations Instrument: A theoretical and empirical basis for the measurement of participant roles in bullying and victimisation of adolescence: An interim test manual and a research monograph: A test manual. Publication Unit, Self-concept Enhancement and Learning Facilitation (SELF) Research Centre, University of Western Sydney.
- Pepler, D., Jiang, D., Craig, W., & Connolly, J. (2008). Developmental trajectories of bullying and associated factors. *Child Development*, 79(2), 325–338. <https://doi.org/10.1111/j.1467-8624.2007.0128.x>
- Peter, J. P. (1979). Reliability: A review of psychometric basics and recent marketing practices. *Journal of Marketing Research*, 15, 6–17.
- Rawlings. (2016). Middle school students' perceptions of bullying. *Bulletin of the Council for Research in Music Education*, 209(7). <https://doi.org/10.5406/bulcouresusedu.209.0007>
- Read, J., & Bentall, R. P. (2012). Negative childhood experiences and mental health: Theoretical, clinical and primary prevention implications. *British Journal of Psychiatry*, 200(2), 89–91. <https://doi.org/10.1192/bjp.bp.111.096727>
- Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect*, 34(4), 244–252. <https://doi.org/10.1016/j.chiabu.2009.07.009>
- Roh, K. S., & Sim, H. O. (2004). Bullying and victimization with perception of parenting behaviors among elementary school children. *Korean Association of Child Studies*, 25, 241–257
- Rose, C. A., Slaten, C. D., & Preast, J. L. (2017). Bully perpetration and Self-Esteem: Examining the relation over time. *Behavioral Disorders*, 42(4), 159–169. <https://doi.org/10.1177/0198742917175733>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M. (1986). Conceiving the Self. In FL. Malabar, E. Silber, & J Tippett (Eds). *Self-esteem: Clinical assessment and measurement validation*, 1017–1071. Psychological Reports.
- Schoeler, T., Duncan, L., Cecil, C. M., Ploubidis, G. B., & Pingault, J. B. (2018). Quasi-experimental evidence on short- and long-term consequences of bullying victimization: A meta-analysis. *Psychological Bulletin*, 144(12), 1229–1246. <https://doi.org/10.1037/bul0000171>

- Shetgiri, R., Lin, H., Avila, R. M., & Flores, G. (2012). Parental characteristics associated with bullying perpetration in U.S. children aged 10 to 17 years. *American Journal of Public Health, 102*(12), 2280–2286. <https://doi.org/10.2105/ajph.2012.300725>
- Shrivastava, A. K., Karia, S. B., Sonavane, S., & De Sousa, A. A. (2017). Child sexual abuse and the development of psychiatric disorders: a neurobiological trajectory of pathogenesis. *Industrial Psychiatry Journal, 26*(1), 4–12. doi: 10.4103/ipj.ipj_38_15
- Singham, T., Viding, E., Schoeler, T., Arseneault, L., Ronald, A., Cecil, C. M., McCrory, E., Rijdsdijk, F., & Pingault, J. B. (2017). Concurrent and longitudinal contribution of exposure to bullying in childhood to mental health. *JAMA Psychiatry, 74*(11), 1112. <https://doi.org/10.1001/jamapsychiatry.2017.2678>
- van Lier, P. A. C., Vitaro, F., Barker, E. D., Brendgen, M., Tremblay, R. E., & Boivin, M. (2012). Peer victimization, poor academic achievement, and the link between childhood externalizing and internalizing problems. *Child Development, 83*(5), 1775–1788. <https://doi.org/10.1111/j.1467-8624.2012.01802.x>
- Wang, X., Yang, L., Gao, L., Yang, J., Lei, L., & Wang, C. (2017). Childhood maltreatment and Chinese adolescents' bullying and defending: The mediating role of moral disengagement. *Child Abuse Neglect, 69*, 134–144.
- Wohad, M. A. & Akhter S. (2010). The effects of childhood sexual abuse on children's psychology and employment. *Procedia Social and Behavioral Sciences 5*, 144–149.