

## Original Research Article

# CLASSROOM SIZE AS A PREDICTOR OF BULLYING BEHAVIOUR AMONG SECONDARY SCHOOL ADOLESCENTS.

### ABSTRACT

**Aim:** This study was carried out to investigate the patterns of bullying behaviour among Nigerian secondary school adolescents and to ascertain the link between classroom size and bullying in selected Senior Secondary Schools in Ogun State, Southwestern Nigeria.

**Study design:** Cross-sectional survey design.

**Place and Duration of Study:** Redeemer's University Osun State, South Western Nigeria.

**Methodology:** Multistage sampling technique was adopted in this study. Random sampling technique was used to select Obafemi / Owode Local Government Area (LGA) from Ogun central senatorial district, four Senior Secondary Schools (SSS) from the LGA and 397 students. Participants responded to School Congestion Questionnaire (SCQ) and Adolescent Peer Relation Instrument: Bully/Target (APRI-BT). Descriptive and inferential statistics were used in data analysis

**Results:** Observed prevalence rates included verbal bullying (42.5%), social bullying (42.3%), physical bullying (37.9%) and overall bullying behaviour (44.8%). Class Size (CS) independently and significantly predicted the severities of verbal bullying ( $R^2 = .029$ ,  $p = .001$ ); social bullying ( $R^2 = .055$ ,  $p = .000$ ); physical bullying ( $R^2 = .042$ ,  $p = .000$ ) and overall bullying behaviour ( $R^2 = .042$ ,  $p = .000$ ) among the sample.

**Conclusion:** There is a high prevalence of bullying behaviour among Nigerian secondary school adolescents. Classroom size is a significant predictor of the individual factors of bullying behaviour (verbal bullying, social bullying, and physical bullying) as well as the composite of bullying behaviour among Senior Secondary School students in Nigeria.

**Key words:** Classroom size, bullying behaviour, school adolescents.

### 1.INTRODUCTION

Bullying at school is a phenomenon that has over the years gained global concern. The prevalence rates however vary across countries [1, 2]. Bullying has been defined as aggressive behaviour, repeated over time, which results in harm to another person, who is usually powerless to defend themselves [3]. Bullying comprises verbal attacks such as name calling, threats), physical behaviours (e.g. hitting, kicking, damaging victim's property), and relational/social aggression (e.g. social exclusion, rumor spreading) [4, 5, 6] up to the most recent forms of attacks through Internet and new technologies also referred to as cyber bullying.

Olweus [7] stated that 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. Stassen [8]; Wolke and Lereya, [9] operationalized bullying in three elements: repetition, harm, and unequal power. Some authors examined the forms of bullying. Stassen [8] differentiates between physical, behavioural, verbal, and relational bullying. Physical bullying involves hitting, kicking, and other types of physical actions. Behavioural bullying implies that something mean is done on purpose, but without direct physical harm (e.g., stealing from someone, holding one's nose when someone approaches). Verbal bullying concerns, for instance, repeated derogatory remarks or name calling. Social bullying involves deliberately ignoring someone or moving away when the person approaches. Apart from the traditional form, a more recent form is cyber bullying, which includes, spreading rumours about a person via the internet or cell phones [10, 11, 12, 8]. Craig, Harel-Fisch, Fogel-Grinvald, Dostaler, Hetland, and Simons-Morton [13] and Stassen [8] distinguished between direct and indirect bullying. Direct bullying is explained as expressions of physical

48 aggression such as hitting and kicking, but also verbal aggression such as teasing, insults, and threats.  
49 Indirect bullying includes manipulations of social relationships that hurt or exclude other individuals, for  
50 instance, gossiping, spreading rumors, ignoring others intentionally, and influencing others to tease or to  
51 physically hurt someone. It should be emphasized that there is no dyadic relationship between bullies, on  
52 the one hand, and victims, on the other [7]. Students' become involved in bullying situations as bullies,  
53 victims, bully victims, or bystanders [14]. Some observers encourage and reinforce bullies, whereas  
54 others defend the victims [15].

55  
56 Whitney & Smith [16];Owens, Shute, and Slee [17] identified insults, name-calling and nicknames, hitting,  
57 direct aggression, theft, threats, and social exclusion or isolation as the most common and frequent forms  
58 of bullying. To Crick & Grotpeter [18] hitting, direct and indirect aggression in the form of verbal abuse,  
59 gestures threats, and destruction of property are considered as major forms of bullying. Moreover, Berger  
60 [19] added verbal abuse, sexual harassment, and dating violence are the form of bullying, which include  
61 bullying behavior in the form of relational and physical bullying [20, 21].

62  
63 | The effects of students' involvement peer bullying are wide-ranging, with negative consequences on their  
64 physical, psychological and social well-being [22, 23]. There are also evidences for the long-term effect of  
65 these negative effects of bullying [24, 25]. In the same line of finding, Stassen [8], affirm that bullying has  
66 negative effects on the well-being of both victims and perpetrators, in both the short and the long term.  
67 Exposure to bullying behaviour whether as a bully, victim, or by stander has been linked to adverse  
68 mental health outcomes both in cross-sectional [26] and in longitudinal studies [27, 9]. In addition to  
69 bullying often having adverse implications for the psychological, social and physical development of the  
70 students involved, those merely witnessing the incidents can be negatively affected by it [28]. Bullying is  
71 harmful not only to those who are directly involved (victims or perpetrators) but also to other members in  
72 the peer group, and can worsen subjective health for the class as a whole [29, 30].

73  
74 Classrooms vary considerably in rates of bullying and victimization [31, 32]. Some studies have  
75 investigated demographic and structural characteristics of classrooms and schools, such as grade level  
76 and number of students, classroom size and so on and how these may contribute to school bullying  
77 behaviour. Implications of the characteristics of the peer contexts shared by students, such as status  
78 hierarchy, norms, bystander behaviours and climate quality, role of teachers has also been studied  
79 especially in developed nations.

### 80 **1.1.Theoretical Perspectives of Bullying**

81 Some researchers find Bullying as Group Process in which all group members are assigned different  
82 roles [33]. They affirm that school students being members of social group occupy different roles to foster  
83 feelings of belongingness and to establish themselves in social hierarchy and to reinforce the occurring of  
84 bullying. Some of the identified roles are: Ringleader Bully, Assistant, Rein forcer, Defender, Victim and  
85 outsider-bystander. Ringleaders initiate the aggression against the target, assistants are followers who  
86 help the bully and engage in aggression against friends, rein forcers are those group members who  
87 provide attention to then bully and provide feedback about the bully's destructive behavior [33].

88 Murkowski et al., [34] viewed bullying from a group dynamics perspective i.e. integrity, homogeneity, and  
89 other evolutionary changes are viewed in group as goals in group dynamic perspective. The attainment of  
90 these goals is given utmost value by all members of a group. Children who are seen as hindrance or  
91 unable to achieve these goals are victimized and excluded from the specific group by other members of  
92 that particular group. Such children as a result become anxious and socially isolated because of their  
93 inability to accept ecological changes and adaptability to meet the desired requirements to stay along the  
94 group. Thus such children are victimized and rejected because these threaten consciously or  
95 unconsciously, group integrity, and other ecological changes through different ways.

96  
97  
98 Some studies have failed to find an association between school size and bullying problems [35, 5, 36, 16,  
99 and 37]. Klein and Cornell [38] showed that teacher- and peer-perceived bullying was higher in larger  
100 high schools, whereas school size was not associated with students' self-reports of victimization. The link  
101 between classroom size and students bullying behaviour has returned differing reports. While some  
102 researchers found no association between class size and bullying behaviour [5, 16, 39], other studies  
103 reported that victimization was more prevalent in larger classrooms [35].Few researches have been done

104 in low- and middle income countries on bullying behaviour[40]. This present study aims to determine the  
105 patterns of bullying behaviour among Nigerian secondary school adolescents and ascertain the link  
106 between classroom size and bullying in selected senior secondary schools in Ogun state, Southwestern  
107 Nigeria.

## 109 2. MATERIAL AND METHODS

### 110 2.1 Participants

111 A cross sectional survey design was employed in the study. The population comprised of male and  
112 female Senior Secondary School (SSS) students in Ogun State, Southwestern Nigeria. Multistage  
113 sampling technique was adopted in this study. Random sampling technique was used to select Obafemi /  
114 Owode Local Government Area (LGA) from Ogun central senatorial district and four Senior Secondary  
115 Schools (SSS) from the LGA. Finally 100 respondents were randomly selected ~~form~~ from each of the four  
116 schools. Of the returned instruments 397 were found well completed and used for the study.

### 118 2.2 Measures

119 Two instruments were used for data collection. This includes one structured questionnaire titled School  
120 Congestion Questionnaire (SCQ).

121 Adolescent Peer Relation Instrument: Bully/Target (APRI-BT) was developed by Parada [41]. It's a 36-  
122 item measure with 6 subscales assessing the frequency of physical, verbal, and social bullying as both  
123 the perpetrator and victim. For this present study only the items containing victims scale was used. Its  
124 original psychometric properties reveal the following Chronbach's alpha: Total bully score = 0.93, Total  
125 victim score = 0.95, Subscale scores = 0.83 to 0.92. In a pilot study the obtained Chronbach's alpha  
126 using a Nigerian sample is 0.75 which makes the psychometric properties acceptable for a Nigerian  
127 sample. The instrument is written in English language hence there was no need for translation to a  
128 Nigerian language since the respondents could read and understand the English language.

### 130 2.3 Data Analysis

131 Collected data was analyzed using the Statistical Package of Social Sciences (SPSS pack 23).  
132 Descriptive statistic (frequency count and percentages) were used to organize, summarize and describe  
133 the demographic characteristics of respondents, while inferential statistic (linear regression analysis) was  
134 employed to test the hypotheses.

### 136 2.4 Demographic Characteristics of Participants.

137 Table 1 presents the summary of the participant's socio-demographic data. It is observed that the male  
138 respondents were 213(53.7%) while females were 184 (46.3%). Age categories shows that 12 -14 years  
139 were 27 (6.8%), 15 – 17 years were 180 (45.6%), 18 –21 years were 156 (39.6%) while 22 years and  
140 above were 32 (8.2%). Mean age of the participants was 18years. Distribution by school shows that  
141 CHSO were 100 (25.2%), CHSA 98 (24.7%), OHS 100 (25.2%) and OGS 99 (24.9%). On the level of  
142 study SSS1 were 77 participants (19.4%), SSS2 were 117 (29.5%) while SSS3 were 198 (49.9%)

143  
144 **Table 1: Demographic characteristics of the sample**

N = 397			
Variables	Levels	Frequency	Percentage
Gender	Male	213	53.7%
	Female	184	46.3%
	Total	397	100%
Age	12-14 years	29	7.3%

	15-17 years	178	44.9%
	18-21 years	161	40.7%
	≥ 22 years	28	7.1%
	Total	396	100%
School	Community High School Ofada (CHSO)	100	25.2%
	Community High School Adesan (CHSA)	98	24.7%
	Owode High School (OHS)	100	25.2%
	Owode Grammar School (OGS)	99	24.9%
	Total	397	100%
Level of study	SSS1	77	19.4%
	SSS2	117	29.5%
	SSS3	198	49.9%
	Total	397	100%

**Comment [m1]:** The number is not same with the total number of the gender total and other statistics.

145  
146  
147  
148  
149  
150  
151  
152  
153

### 3 RESULTS

The patterns of bullying behaviour as summarized in table 2 shows that there is a high prevalence of the factors used to measure bullying behaviour among the participants. An overall prevalence of bullying behaviour 44.8% was reported. Among the factors, the highest was verbal bullying (42.5%), next was social bullying (42.3%) and the lowest was physical bullying with 37.9% prevalence.

**Table 2: Patterns of bullying behaviour among the participants**

N = 397	
Factors	Prevalence (%)
Verbal bullying	42.5
Social bullying	42.3
Physical bullying	37.9
Bullying behaviour total	44.8

154 A linear regression analysis was carried out to determine the degree to which classroom size  
155 independently and significantly predicted severity of verbal bullying among the participants. Result  
156 indicated that CS independently and significantly predicted the severity of verbal bullying among the

157 sample, ( $R^2 = .029, p = .001$ ). The analysis summarized in table 3 suggests that 2.9% variance severity of  
 158 verbal bullying is explained by class size of the students.

160 **Table 3: Linear Regression Analysis of degree of verbal bullying by Classroom Size (CS) among**  
 161 **Nigerian Senior Secondary School adolescents.**

N = 397							
	B	$\beta$	T	sig	$R^2$	F	p
(Constant)	21.00		14.75	.000			
Classroom size	-.67	-.17	-3.36	.001	.029	11.29	.001

163 A linear regression analysis was carried out to determine the degree to which Classroom Size (CS)  
 164 independently and significantly predicted severity of social bullying among the participants. Result  
 165 indicated that CS independently and significantly predicted the severity of social bullying among the  
 166 sample, ( $R^2 = .055, p = .000$ ). The analysis summarized in Table 4 suggests that 5.5% variance severity  
 167 of social bullying is explained by classroom size of the students.

170 **Table 4: Linear Regression Analysis of degree of Social bullying by Classroom Size (CS) among**  
 171 **the participants.**

N = 397							
	B	$\beta$	T	sig	$R^2$	F	p
(Constant)	21.00		16.31	.000			
Class size	-.85	-.23	-4.72	.000	.055	22.27	.000

174 A linear regression analysis was carried out to determine the degree to which classroom size  
 175 independently and significantly predicted severity of physical bullying among the participants. Result  
 176 indicated that CS independently and significantly predicted the severity of physical bullying among the  
 177 sample, ( $R^2 = .042, p = .000$ ). The analysis summarized in Table 5 suggests that 4.2% variance severity  
 178 of physical bullying is explained by classroom size of the students.

181 **Table 5: Linear Regression Analysis of degree of Physical bullying by Classroom Size (CS) among**  
 182 **Nigerian Senior Secondary School adolescents.**

N = 397							
	B	$\beta$	T	sig	$R^2$	F	p
(Constant)	21.58		14.41	.000			
Classroom	-.86	-.21	-4.11	.000	.042	16.91	.000

size

185 A linear regression analysis was carried out to define the extent to which classroom size independently  
186 and significantly predicted severity of bullying behaviour among the participants. Result indicated that CS  
187 independently and significantly predicted the severity of bullying behaviour among the sample, ( $R^2 = .042$ ,  
188  $p = .000$ ). The analysis summarized in Table 6 suggests that 4.2% variance severity of bullying  
189 behaviour is explained by classroom size of the students.

190  
191 **Table 6: Linear Regression Analysis of degree of Bullying Behaviour by Classroom Size (CS)**  
192 **among Nigerian Senior Secondary School adolescents.**  
193

	B	$\beta$	T	sig	$R^2$	F	p
(Constant)	60.60		16.68	.000			
Classroom size	-2.09	-.21	-4.10	.000	.042	16.83	.000

194  
195 **4. DISCUSSIONS**

196 This study investigated classroom size (CS) as a predictor of bullying behaviour among Senior Secondary  
197 School adolescents in Ogun state Nigeria. The first objective was to explore the patterns of bullying  
198 behaviour among the participants. Result revealed that there is a high prevalence of bullying behaviour  
199 among the Nigerian adolescents. This result supports research findings across the globe. For instance  
200 Craig et al., [13] who in a cross-national survey of among students aged 11 to 15 years, returned a 13%  
201 and 11% respectively of victims and bullies. Prevalence in a survey of 40 European countries and North  
202 America countries ranged from 6.7% for Sweden to 40.5% in Lithuania [13]. Juvonen and Graham [42]  
203 reported that approximately 20–25% of youth were directly involved in bullying as perpetrators, victims, or  
204 both.

205 In a meta-analysis on bullying and cyber bullying Modecki et al., [43] reported an estimated mean  
206 prevalence of 35% for traditional bullying and 15% for cyber bullying involvement. Sittichai and Smith [44]  
207 reviewed studies from ten Asian countries returned a prevalence of about 10% concluding that bullying-  
208 like behaviours are fairly frequent in the ten countries, with comparable prevalence rates to those found in  
209 western countries. Oliveros, Figueroa, & Mayorga, [45] reported a 40 – 50% prevalence of bullying  
210 behaviour among teens in Peru and Colombia. Studies from Nicaragua showed the involvement of 35%  
211 of secondary school students [46]. However unlike the prevalence of bullying found in eastern and  
212 western countries, the prevalence of bullying behaviour found among the Nigerian samples is quite  
213 higher. This difference could be as a result of the socio-cultural and economic situations of the low  
214 income African nations. For instance Greeff and Grobler [47] returned that a percentage of 56.4% of  
215 South African students reporting to be bullied. Approximately 25–35%, of direct and indirect forms of  
216 bullying was reported in Algeria [48].

217  
218 This present study also found that class size significantly predicted the individual factors (verbal bullying,  
219 social bullying, and physical bullying) as well as the composite of bullying behaviour among the Nigerian  
220 sample. There is opposing findings among researcher on the influence of classroom size on bullying  
221 behaviour in schools. Some found no association between classroom size and bullying behaviour [5, 39,  
222 16], while some other studies reported that victimization was more prevalent in larger classrooms [35].  
223

224 Saarento et al. [49] and Vervoort et al. [50] disclosed that peer-reported victimization was more common  
225 in smaller classrooms and that classroom size was not related to self-reported victimization. Also  
226 classroom size was found to moderate the effects of intra and interpersonal risk factors on peer- and self-  
227 reported victimization [49]. The authors explained that for socially anxious students had the risk of being

228 bullied was exacerbated in smaller classrooms. Additionally Ma [51] found the risk of self-reported  
229 bullying to be increased in smaller middle schools.

230

## 231 5. CONCLUSIONS AND RECOMMENDATIONS

232 There is a high prevalence of bullying behaviour among Nigerian secondary school adolescents.  
233 Classroom size is a significant predictor of the individual factors of bullying behaviour (verbal bullying,  
234 social bullying, and physical bullying) as well as the composite of bullying behaviour among Senior  
235 Secondary School students in Nigerian.

236 There is need for more research studies on the role of school climate on behaviour patterns of Nigerian  
237 secondary school students.

238

## 239 COMPETING INTERESTS

240 Authors have declared that no competing interests exist.

241

## 242 REFERENCES

- 243 1. Chester K. L, Callaghan M, Cosma A, Donnelly P, Craig W, Walsh S, Molcho, M. Cross-national  
244 time trends in bullying victimization among children aged 11, 13 and 15 from 2002 to  
245 2010. *European Journal of Public Health* 2015; 5 (Suppl 2), 61–64.  
246
- 247 2. Molcho M, Craig W, Due P, Pickett W, Harel-Fisch Y, Overpeck M, The HBSC Bullying Writing  
248 Group. Cross-national time trends in bullying behaviour 1994-2006: Findings from Europe and  
249 North America. *International Journal of Public Health*, 2009; 54, S225–S234.  
250
- 251 3. Olweus D. Bully-victim problems among school children: Basic facts and effects of a school  
252 based intervention programme. In D. J. Pepler & K. H. Ruben (Eds.). *The development and  
253 treatment of childhood aggression* (pp. 411- 448). Hillsdale, NJ: Erlbaum, 1991.  
254
- 255 4. Monks C, Smith PK. Definitions of bullying: Age differences in understanding of the term, and the  
256 role of experience. *British Journal of Developmental Psychology*, 2006; 24, 801–821  
257
- 258 5. Olweus D. Sweden. In P. K. Smith, Y. Morita, Junger-Tas, D. Olweus, R. Catalano & P. Slee  
259 (Eds.). *The nature of school bullying: A cross-national perspective* (pp. 7-28). London: Routledge,  
260 1999  
261
- 262 6. Smith PK. *Understanding school bullying: Its nature and prevention strategies*. London: Sage.  
263 2014.  
264
- 265 7. Olweus D. *Bullying at school: What we know and what we can do*. Oxford: Blackwell, 1993  
266
- 267 8. Stassen BK. Update on bullying at school: Science forgotten? *Developmental Review*, 2007;  
268 27, 90–126.  
269
- 270 9. Wolke D, Lereya ST. Long-term effects of bullying. *Archives of Disease in Childhood*, 2015;  
271 100, 879–885.  
272
- 273 10. Kowalski RM, Giumetti GW, Schroeder AN, Lattanner MR. Bullying in the digital age: A critical  
274 review and meta-analysis of cyber bullying research among youth. *Psychological Bulletin*, 2014;  
275 140, 1073–1137.  
276
- 277 11. Låftman SB, Modin B, Östberg V. Cyber bullying and subjective health: A large-scale study of  
278 students in Stockholm, Sweden. *Children and Youth Services Review*, 2013; 35, 112–119

- 279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334
12. Mishna F, Khoury-Kassabri M, Gadalla T, Daciuk J. Risk factors for involvement in cyber bullying: Victims, bullies and bully-victims. *Children and Youth Services Review*, 2012; 34, 63–70.
  13. Craig W, Harel-Fisch Y, Fogel-Grinvald H, Dostaler S, Hetland J, Simons-Morton B, HBSC Bullying Writing Group. A cross-national profile of bullying and victimization among adolescents in 40 countries. *International Journal of Public Health*, 2009, 54, 216-224.
  14. Espelage DL, Swearer SM. Research on school bullying and victimization: What have we learned and where do we go from here? *School Psychology Review*; 2003, 32, 365–383.
  15. Salmivalli C. Participant role approach to school bullying: Implications for interventions. *Journal of Adolescence*, 1999; 22, 453–459.
  16. Whitney I, Smith PK. A survey of the nature and extent of bullying in junior, middle and secondary schools. *Educational Research*, 1993; 32:3-25.
  17. Owens L, Shute R, Slee P. "Guess what I just heard": Indirect aggression among Teenage girls in Australia. *Aggressive Behavior*, 2000; 26, 67–83.
  18. Crick NR, Grotpeter JK. Relational aggression, gender, and social-psychological adjustment. *Child Development*, 1995; 66, 710–722.
  19. Berger SK. Update on bullying at school: science forgotten? *Developmental Review*, 2007; 27:90-126.
  20. Tapper K, Boulton MJ. Victim and peer group responses to different forms of aggression among primary school children. *Aggressive Behavior*, 2005; 31:238-253.
  21. Pepler D, Jiang D, Craig W, Connolly J. Developmental trajectories of bullying and associated factors. *Child Development*, 2008; 79, 325–338.
  22. Due P, Holstein BE, Lynch J, Diderichsen F, Gabhain SN, Scheidt P, Currie C. Bullying and symptoms among school-aged children: International comparative cross sectional study in 28 countries. *European Journal of Public Health*, 2005; 15(2), 128-132.
  23. Williams K, Chambers M, Logan S, Robinson D. Association of common health symptoms with bullying in primary school children. *British Medical Journal*, 2006; 313, 17-19.
  24. Carlisle N, Rofes E. School Bullying: Do Adult Survivors Perceive Long-Term Effects? *Traumatology*, 2007; 13(1), 16-26.
  25. Schäfer M, Korn S, Smith PK, Hunter SC, Mora-Merchán JA, Singer MM, van der Meulen K. Lonely in the crowd: Recollections of bullying. *British Journal of Developmental Psychology*, 2004; 22, 379-394.
  26. Gini G, Pozzoli T. Association between bullying and psychosomatic problems: A meta-analysis. *Pediatrics*, 2009; 123, 1059–1065.
  27. Östberg V, Modin B, Låftman SB. Social utsatthet i skolan: Erfarenheter av mobbning och psykisk hälsa bland unga vuxna [Social exclusion at school: Experiences of bullying and mental health among young adults]. In M. Evertsson & C. Magnusson (Eds.), *Ojämlighetsdimensioner: Uppväxtvillkor, arbete och hälsa i Sverige* [Dimensions of inequality: Childhood conditions, work, and health in Sweden] (pp. 98–124). Stockholm, Sweden: Liber. 2014



- 335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389
28. Rivers I, Poteat VP, Noret N, Ashurst N Observing bullying at school: The mental health implications of witness status. *School Psychology Quarterly*, 2009; 24, 211–223.
  29. Meilstrup C, Ersbøll AK, Nielsen L, Koushede V, Bendtsen P, Due P, Holstein BE. Emotional symptoms among adolescents: Epidemiological analysis of individual-, classroom- and school-level factors. *European Journal of Public Health*, 2015; 25, 644–649.
  30. Modin B, Karvonen S, Rahkonen O, Östberg V. School performance, school segregation, and stress-related symptoms: Comparing Helsinki and Stockholm. *School Effectiveness and School Improvement*, 2015; 26, 467–486.
  31. Bradshaw CP, Sawyer AL, O'Brennan LM. A social disorganization perspective on bullying-related attitudes and behaviors: The influence of school context. *American Journal of Community Psychology*, 2009; 43, 204–220.
  32. Kärnä A, Voeten M, Little TD, Alanen E, Poskiparta E, Salmivalli C. Effectiveness of the KiVa antibullying program: Grades 1–3 and 7–9. *Journal of Educational Psychology*, 2013; 105, 535–551.
  33. Salmivalli C. Feeling good about one, being bad to others? Remarks on self-esteem. 2001
  34. Murkowski WM, Sipploa LK, Newcomb AF. Variations in patterns of attraction to same-and other-sex peers during early adolescence. *Developmental Psychology*, 2001; 36, 147–154.
  35. Hawker DSJ, Boulton MJ. Twenty years research on peer victimization psychosocial maladjustment: a meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry*, 2000; 41:441–455.
  36. Wei HS, Williams JH, Chen JK, Chang HY. The effects of individual characteristics, teacher practice, and school organizational factors on students' bullying: A multilevel analysis of public middle schools in Taiwan. *Children and Youth Services Review*, 2009; 32, 137–143.
  37. Wolke D, Woods S, Stanford K, Schulz H. Bullying and victimization of primary school children in England and Germany: Prevalence and school factors. *British Journal of Psychology*, 2001; 92, 673–696.
  38. Klein J, Cornell D. Is the link between large high schools and student victimization an illusion? *Journal of Educational Psychology*, 2010; 102, 933–946.
  39. Saarento S, Kärnä A, Salmivalli C. Student-, classroom-, and school- level risk factors for bullying. Poster session presented at the Society for Research in Child Development Biennial Meeting, Montreal, Quebec, Canada 2011; March
  40. Zych I, Ortega R, Del Rey R. Scientific research on bullying and cyber bullying: Where have we been and where are we going. *Aggression and Violent Behavior*, 2015; 24, 188–198.
  41. Parada RH. Adolescent Peer Relations Instrument: A theoretical and empirical basis for the measurement of participant roles in bullying and victimization of adolescence: An interim test manual and a research monograph: A test manual. Penrith South, DC, Australia: Publication Unit, Self-concept Enhancement and Learning Facilitation (SELF) Research Centre, University of Western Sydney, 2000.
  42. Juvonen J, Graham S. Bullying in schools: The power of bullies and the plight of victims. *Annual Review of Psychology*, 2014; 65, 159–185.

- 390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419
43. Modecki KL, Minchin J, Harbaugh, AG, Guerra NG, Runions KC. Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health*, 2014; 55, 602–611.
  44. Sittichai R, Smith PK. Bullying in south-east Asian countries: A review. *Aggression and Violent Behavior*, 2015; 23, 22–35.
  45. Oliveros M, Figueroa L, Mayorga G. Intimidación en colegios estatales de secundaria del Perú [Bullying in state high schools in Perú]. *Revista Peruana de Pediatría*, 2009; 62, 68–78.
  46. Del Rey R, Ortega R. Bullying en los países pobres: prevalencia y coexistencia con otras formas de violencia [Bullying in poor countries: Prevalence and coexistence with other violence types]. *International Journal of Psychology and Psychological Therapy*, 2008; 8, 39–50.
  47. Greeff P, Grobler AA. Bullying during the intermediate school phase: A South African study. *Childhood*, 2008; 15, 127–144.
  48. Tiliouine H. School bullying victimization and subjective well-being in Algeria. *Child Indicators Research*, 2015; 8, 133–150.
  49. Saarento S, Kärnä A, Hodges EVE, Salmivalli C. Student-, classroom, and school-level risk factors for victimization. *Journal of School Psychology*, 2013; 51, 421–434.
  50. Vervoort MHM, Scholte RHJ, Overbeek G. Bullying and victimization among adolescents: The role of ethnicity and ethnic composition of school class. *Journal of Youth and Adolescence*, 2010; 39, 1–11.
  51. Ma X. Bullying in middle school: Individual and school characteristics of victims and offenders. *School Effectiveness and School Improvement*, 2002; 13, 63–89