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Why do young adolescents bully? Experience in Malaysian schools

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Abstract

Introduction: To determine sociodemographic and psychological factors associated with bullying behavior among young adolescents in Malaysia.
Methods: This is a cross-sectional study of four hundred ten 12-year-old adolescents from seven randomly sampled schools in the Federal Territory of Kuala Lumpur, Malaysia. Sociodemographic features of the adolescents and their parents, bullying behavior (Malaysian Bullying Questionnaire), ADHD symptoms (Conners Rating Scales), and internalizing and externalizing behavior (Child Behaviour Checklist) were obtained from adolescents, parents and teachers, respectively.
Results: Only male gender (OR = 7.071, p = 0.01*, CI = 1.642–30.446) was a significant sociodemographic factor among bullies. Predominantly hyperactive (OR = 2.285, p = 0.00*, CI = 1.507–3.467) and inattentive ADHD symptoms reported by teachers (OR = 1.829, p = 0.03*, CI = 1.060–3.154) and parents (OR = 1.709, p = 0.03*, CI = 1.046–2.793) were significant risk factors for bullying behavior while combined symptoms reported by young adolescents (OR = 0.729, p = 0.01*, CI = 0.580–0.915) and teachers (OR = 0.643, p = 0.02*, CI = 0.440–0.938) were protective against bullying behavior despite the influence of conduct behavior (OR = 3.160, p = 0.00*, CI = 1.600–6.241). Internalizing behavior, that is, withdrawn (OR = 0.653, p = 0.04*, CI = 0.436–0.977) and somatic complaints (OR = 0.619, p = 0.01*, CI = 0.430–0.889) significantly protect against bullying behavior.
Discussions: Recognizing factors associated with bullying behavior, in particular factors distinctive to the local population, facilitates in strategizing effective interventions for school bullying among young adolescents in Malaysian schools.

1. Introduction

Bullying refers to a repeated act of aggression toward a weaker victim [1]. It is a common phenomenon among children and adolescents worldwide [2] that needs to be curbed.

Why do adolescents bully? Bullying has been attributed to low self-control [3] and poor impulsivity [4] in adolescents. Young adolescents with bullying behavior were usually psychologically disturbed [5]. Psychiatric disorders such as attention-deficit hyperactivity disorder (ADHD) [6,7] and its comorbid conditions such as conduct disorder (CD) and oppositional defiant disorder (ODD) were common among young adolescents with bullying behavior [7]. Common correlates of ADHD and bullying such as low self-control [3] and hyperactivity [8] explain the relationship between the two. A Korean study found bullies to commonly have depressive symptoms and low self-esteem [9]. Bullying probably provides for their need to control and also boost their self-esteem.

Family factors such as domestic violence and child abuse [10] have also been implicated in the etiology of bullying behavior. Adolescents may model the aggression they have been exposed to at home and exercise that to the vulnerable peers in school. A prospective study found maternal depression and low maternal warmth to be associated with bullying behavior but confounded by young adolescents' behavioral problems [10]. Most of the studies on bullying behavior came from the Western population, hence the difficulty to generalize findings to the non-Western counterparts.

Bullying is common [11–13] in Malaysian schools and it has received great attention due to the high prevalence. A study on risk-taking behavior among young adolescents aged

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13 years, in rural development schemes found the prevalence of bullying behavior at 14.4% [14]. A similar study among 280 young adolescents of the same age group but in an urban area in the south of Malaysia, reported a prevalence of 21.1% [15]. Yaakob et al [12] did a bigger study involving 2528 school children aged 10–12 years recruited from 29 schools in Perak and found that 53.2% of the respondents admitted their involvement in bullying behavior. Despite the figure showing more than half of the students involved in bully, many cases possibly remain unreported and dismissed as part of growing pains. However, bully is known to lead to multiple negative psychosocial complications such as depression, anxiety and aggression [16], particularly in urban society, where bullying is more common [17]. This is possibly due to social isolation being part of a city living. There is however, a paucity of data looking at the factors contributing to bullying behavior, in particular focusing at the associated psychiatric morbidity. This study therefore was aimed to determine the factors associated with bullying behavior among young adolescents attending schools in the Federal Territory of Kuala Lumpur, Malaysia. Identifying these factors would help to strategize the preventive and interventive measures to curb bullying behavior.

2. Methods

This is a cross-sectional study of young adolescents, aged 12 years, who were recruited from public schools in the Federal Territory of Kuala Lumpur, Malaysia. Seven schools were randomly selected from a list of all public schools in the Federal Territory of Kuala Lumpur. All adolescents and their parents from the randomly selected schools who met the inclusion criteria were given information sheet providing the study details and parents' consent forms. The students whose parents consented were further approached to participate in the study.

Of the 826 adolescents approached, 183 did not consent whereas another 198 did not return the consent forms after two reminders and thus considered not consented. A total of 445 consented to participate but 35 were further excluded because they were absent during data collection or had language difficulty, leading to a final sample of 410 participants.

The attrition rate in this study was 50.36% (n = 416) whereby almost half (43.99%; n = 183) did not consent and more than half (47.59%; n = 198) failed to return the forms, while 35 students were absent or had language difficulty during the survey. The poor response was expected in this type of study and therefore was taken into consideration in the calculation of sample size. The calculated sample size was 383 but the targeted size was 651 after considering an attrition rate of 70%. At 80% power and 95% significance level the sample size was adequate to detect the significance of the study.

Inclusion criteria were adolescents aged 12 years, who obtained the parents' consent to participate, and assented to participate and had good understanding of Malay language, that is, the national language in Malaysia. Adolescents with language difficulty and/or from the special education class were excluded from the study. The adolescents with language difficulty were identified and screened by their respective teachers. The study was approved by the Ethics Committee of the Universiti Kebangsaan Malaysia and Ministry of Education Malaysia.

Self-administered questionnaires were used to obtain information on demographic features, bullying behavior, ADHD symptoms, and internalizing behavior and externalizing behavior. Demographic variables such as gender, ethnicity, number of siblings, academic performance, and family background such as parent's educational status, marital status, and time spent with their children were obtained from the adolescents and their parents.

Exclusive bullies referred to adolescents who bullied others but never been victimized, whereas bully–victims were adolescents who bullied others but had also been victimized. The victims were defined as adolescents who were victimized but never bullied others whereas the non-bully–victims were adolescents who never bullied or being bullied. This paper focused on exclusive bullies and bullying behavior only, which are referred to as bullies and bullying behavior.

Bullying behavior was measured using The Malaysian Bullying Questionnaire (MBQ) [12]. The reliability (Cronbach alpha) for the overall instrument is 0.86. The reliability values for bullying are 0.79 (physical bullying) and 0.8 (psychological bullying). Bullying behavior was defined as involvement in bullying three or more times in the past month, with the cutoff score of 12 and above in the bullying scale. For the purpose of this study, bullying was defined by at least six different behaviors (i.e. at least 6 items from the total of 11 items on bullying) to occur repeatedly (i.e. bullied three or four times). Therefore, a score of 2 per item in at least 6 items with a total score of 12 is taken as the cutoff score.

ADHD symptoms in the participants were reported by three sources of informants: (1) the adolescents themselves, (2) their parents, and (3) their teachers who completed Conners–Wells Self-Report: Short Form (CASS:S), Conners' Parents Rating Scale: Short Form (CPRS:S), and Conners Teachers Rating Scale: Short Form (CTRS:S), respectively [18]. The translated versions of Corners Rating Scales in the national language, that is, Malay language, were used in this study. The Cronbach alpha values for the subscale index (cognitive problems/inattention, hyperactivity, and ADHD index) of CASS-R:S are 0.635, 0.367 and 0.727, respectively. The Cronbach alpha values for the subscale index (cognitive problems/inattention, hyperactivity, and ADHD index) of CPRS-R:S are 0.916, 0.842 and 0.904, respectively. The Cronbach alpha values for the subscale index (cognitive problems/inattention, hyperactivity, and ADHD index) of CTRS-R:S are 0.793, 0.836 and 0.911, respectively.

The parents also completed Child Behaviour Check List (CBCL/1–18)[19] for their adolescents. The translated

version has good reliability and was used in this study. Only the internalizing behavior subscales (i.e. withdrawn, somatic and anxious) were analyzed. The Cronbach alpha values for the domains (anxious/depressed, withdrawn/depressed, and somatic) are 0.923, 0.912 and 0.842, respectively.

The participants were asked to complete the questionnaires (i.e. demographic questionnaire, Malaysian Bullying Questionnaire and CASS:S) during the given time. Teachers completed the CTRS:S for the adolescents under their care. They also rated the academic performance based on the examination results. A total of 37 teachers were involved with a teacher/student ratio of 1:11. The teachers were given 2 weeks to complete the questionnaires before they were collected by hand. The questionnaires for the parents (i.e. CPRS:S and CBCL) were distributed through their children. The parents had 2 weeks to complete the questionnaires, which were returned to the researchers through their children.

2.1. Statistical analysis

Statistical Package for Social Studies (SPSS) Software version 13.0 was used for data analysis. Q-Q plot and KS checked for normality of the data. Multiple logistic regression analysis was subsequently used to examine the relationship between the various sociodemographic variables, ADHD symptoms (reported by the various informants), internalizing behavior (withdrawn, anxious, somatic complaints) and externalizing behavior (conduct behavior) among adolescents involved in bullying.

3. Results

The overall prevalence of adolescents involved in bullying was 20%; 2.4% were exclusive bullies and 17.6% were bully–victims. Tables 1 and 2 showed the demographic features of the adolescents involved in the study and their parents, respectively.

There were significant differences in ethnicity, sex and academic performance with regard to bullying behavior. All parents of bullies were married and majority of them had no tertiary level. There were no significant differences in the demographic characteristics of parents such as age, educational level, marital status and amount of time spent with children with regard to bullying behavior.

The adolescents' demographic factors, ADHD symptoms, internalizing symptoms (withdrawn, anxious, somatic subscale) and externalizing symptoms (conduct behavior subscale) were analyzed using logistic regression, which were illustrated in Table 3. Male gender (OR = 7.071, p = 0.01), ADHD symptoms (hyperactive) reported by adolescents (OR = 2.285, p = 0.03), ADHD symptoms (inattentive) reported by teachers (OR = 1.829, p = 0.03) and parents (OR = 1.709, p = 0.03) and conduct behavior (OR = 3.160, p = 0.00) were found to be the risk factors for bullying behavior. On the other hand, ADHD symptoms (combined) reported by adolescents (OR = 0.729, p = 0.01) and teachers (OR = 0.643, p = 0.02), withdrawn (OR = 0.653, p = 0.04) and somatic complaints (OR = 0.619, p = 0.01) were protective factors of bullying behavior.

4. Discussion

The prevalence of bullying behavior in this study was relatively low compared to other studies locally [11–13] and abroad [2,7,9]. This can be explained by the different instruments used, definitions of bullying, sample size, and the different environmental and cultural factors. Compared to studies overseas, bullying behavior can be perceived differently within the societies. A highly tolerant society would tolerate bullying among peers as part of growing up

Table 1
Demographic features of the adolescents involved in bullying.

Variable	Bully (n = 10)	Victim (n = 169)	Bully–victim (n = 72)	Non-bully–victim (n = 159)	p values
Ethnicity					
Malay	9 (2.9%)	128 (40.6%)	47 (14.9%)	131 (41.6%)	p = 0.01[a]
Chinese	0	10 (35.7%)	11 (39.3%)	7 (25%)	
Indian	1 (1.8%)	29 (51.8%)	8 (14.3%)	18 (32.1%)	
Others	0	2 (18.2%)	6 (54.5%)	3 (27.3%)	
Sex					
Boys	9 (4.5%)	76 (38%)	45 (22.5%)	70 (35%)	p < 0.01[b]
Girls	1 (0.5%)	93 (44.3%)	27 (12.9%)	89 (42.4%)	
Academic performance					
Poor	5 (2%)	99 (40.2%)	50 (20.3%)	92 (37.4%)	p = 0.03[c]
Good	2 (1.5%)	60 (45.5%)	12 (9.1%)	58 (43.9%)	
Number of siblings					
0–5	8 (2.5%)	137 (42%)	55 (16.9%)	126 (38.7%)	p = 0.70[d]
≥6	2 (2.6%)	27 (35.1%)	16 (20.8%)	32 (41.6%)	

[a] Chi-square = 19.828 (Fisher's exact test).
[b] Chi-square = 14.645.
[c] Chi-square = 8.575, p = 0.03.
[d] Chi-square = 1.421, p = 0.70.

Table 2
Demographic features of the parents of adolescents involved in the study.

Demographic features	Bully	Victim	Bully–victim	Non-bully–victim	*p* value
Age of father	*n* = 7	*n* = 132	*n* = 57	*n* = 134	
≤45 y	5 (2.6%)	75 (39.1%)	38 (19.8%)	74 (38.5%)	*p* = 0.43[a]
>45 y	2 (1.4%)	57 (41.3%)	19 (13.8%)	60 (43.5%)	
Age of mother	*n* = 8	*n* = 138	*n* = 54	*n* = 142	
≤45 y	5 (1.8%)	119 (42.2%)	46 (16.3%)	112 (39.7%)	*p* = 0.17[b]
>45 y	3 (5%)	19 (31.7%)	8 (13.3%)	30 (50%)	
Educational level of father	*n* = 8	*n* = 133	*n* = 57	*n* = 136	
No tertiary level	8 (2.8%)	110 (37.9%)	54 (18.6%)	118 (40.7%)	*p* = 0.10[c]
Tertiary level	0 (0%)	23 (52.3%)	3 (6.8%)	18 (40.9%)	
Educational level of mother	*n* = 9	*n* = 138	*n* = 56	*n* = 146	
No tertiary level	7 (2.3%)	117 (38.6%)	51 (16.8%)	128 (42.2%)	*p* = 0.55[d]
Tertiary level	2 (4.3%)	21 (45.7%)	5 (10.9%)	18 (39.1%)	
Marital status	*n* = 9	*n* = 140	*n* = 60	*n* = 146	
Married	9 (2.7%)	129 (39.1%)	56 (17%)	136 (41.2%)	*p* = 0.98[e]
Divorced/others	0 (0%)	11 (44%)	4 (16%)	10 (40%)	
Amount of time spent with adolescents in a day	*n* = 7	*n* = 128	*n* = 52	*n* = 133	
≤10 h	4 (2.2%)	72 (39.8%)	30 (16.6%)	75 (41.4%)	*p* = 1.00 [f]
>10 h	3 (2.2%)	56 (40.3%)	22 (15.8%)	58 (41.7%)	

[a] Chi-square = 2.774 (Fisher's exact test).
[b] Chi-square = 5.101 (Fisher's exact test).
[c] Chi-square = 6.306.
[d] Chi-square = 2.121.
[e] Chi-square = 0.256 (Fisher's exact test).
[f] Chi-square = 0.117 (Fisher's exact test).

whereas the same behavior will be regarded as intrusive and unacceptable. Some of the Asian values as opposed to Western culture are more inhibited in their self-expression. Therefore a person who bullied may not report or regard his/her behavior as bullying but rationalized the behavior as normal resulting in the low bully rate found in this study. Using self-reported questionnaire is also a limitation to the study. Different attitudes of teachers across cultures may influence the students' perception on bully in that a highly tolerant teacher would encourage bullying behavior without them recognizing the bullying and dismissed as norm.

Furthermore, the bullies as defined in this study were exclusive or pure bullies whereby the adolescents were involved in bullying others but had never been bullied in the past. This resulted in a low prevalence of 2.4% compared to 20% when the bully–victims were brought together under the same heading.

Majority of the bullies in this study were adolescent males with poor academic performance, who came from a lower socioeconomic status based on their parents' educational background. Previous research results have associated bullying behavior with male gender [5,16,20], low academic achievement [21] and low socioeconomic status [22].

According to the 2010 Census [23], the Malaysian population comprises 63.1% Malays, 24.6% Chinese and 7.3% Indians. Although the Malays and Indians were slightly overrepresented whereas the Chinese were underrepresented in this study, the sample reflected the ethnic distribution of the Malaysian population. Similarly, the sex ratio of the study sample resembles the sex ratio in the

Table 3
Factors predicting bullying behavior analyzed with logistic regression.

Variables	*B*	S.E.	Wald	*p* value	Exp(*B*)	95% CI
Male gender	1.956	0.745	6.895	0.01*	7.071	1.642–30.446
ADHD symptoms (combined) reported by adolescents	−0.316	0.116	7.420	0.01*	0.729	0.580–0.915
ADHD symptoms (combined) reported by teachers	−0.442	0.193	5.427	0.02*	0.643	0.440–0.938
ADHD symptoms (hyperactive) reported by adolescents	0.827	0.213	15.116	0.00*	2.285	1.507–3.467
ADHD symptoms (inattentive) reported by teachers	0.604	0.278	4.707	0.03*	1.829	1.060–3.154
ADHD symptoms (inattentive) reported by parents	0.536	0.250	4.583	0.03*	1.709	1.046–2.793
Conduct behavior	1.151	0.347	10.983	0.00*	3.160	1.600–6.241
Internalizing behavior) (withdrawn)	−0.426	0.206	4.290	0.04*	0.653	0.436–0.977
Internalizing behavior (somatic complaints)	−0.480	0.185	6.727	0.01*	0.619	0.430–0.889

Nagelkerke $R^2 = 0.587$.
* $p < 0.05$.

Malaysian population [24]. In this study, the Malays were significantly the highest among bullies, compared to other ethnic groups, which can be attributed to being the majority in the schools. Ethnicity may represent status and imbalance in power [25], which may lead to bullying between different ethnic groups. The ethnic majority may feel more comfortable exerting their power struggle to the ethnic minority. A different ethnic group from the majority has been identified as a vulnerable factor to being bullied [26]. The ethnic composition of the class may also need to be taken into consideration in understanding the role of ethnic differences in adolescent bullying [27]. Nevertheless, it is also recognized that sociodemographic factors within each ethnic group such as gender, academic performance and sociodemographic group may have confounding effect on this finding. Among bullies, there were significantly more adolescents with poor academic performance. However, in this study, only male gender was found to be a significant risk factor for bullying behavior.

In general, boys tend to play with violent computer games and watch violent television programs [28]. Such exposure put them at increased risk for having aggressive cognition and behavior [29] which may further predispose to bullying. Behavioral problem including antisocial behavior which is commonly related to adolescent males [21] may explain their higher tendency to bullying. In Asian countries such as Malaysia, males are culturally perceived and expected to be more aggressive than females. Asian boys who were more assertive compared to Asian girls [30], may tend to assert themselves physically and verbally in certain situations leading to bullying behavior. Classroom observation in 12 Asian countries done by the UNESCO [31] Education program showed that boys are culturally influenced to be more aggressive. In the Malay culture specifically, boys tend to receive harsh punishment compared to girls [32], reflecting the cultural expectation of boys to be tough and aggressive. Parents tend to be more controlling toward girls whereas boys are given more freedom to do activities they like [32]. The freedom given and lack of parental monitoring may be violated resulting in undesirable behavior such as bullying.

In contrast to previous findings, this study did not find significant sociodemographic factors in bullying except for male gender. It is possible that bullying correlates in the local population are different suggesting that bullying particularly in the non-Western regions may be different in nature [9]. On the other hand, this can be partly attributed to the small sample size, information bias in reporting bullying behavior and some other limitations of the study.

Various psychiatric disorders such as depression, oppositional defiant disorder and conduct disorder have been associated with bullying behavior but ADHD was found the commonest [7].

This study looked at the different subtypes of ADHD symptoms and their association with bullying behavior. Predominantly hyperactive and inattentive symptoms were significant risk factors for bullying behavior. In the adolescents with predominantly hyperactive symptoms, bullying behavior is well explained by the symptoms of hyperactivity and impulsivity [3,33]. Predominantly inattentive ADHD symptoms reported by parents and teachers also put the adolescents at significant risk for bullying others. Comorbid conditions such as depression and anxiety may be mediating the effect of bullying behavior rather than the ADHD symptoms alone. Depression and anxiety had shown a significant association with bullying behavior [9]. It was postulated that bullying in these adolescents was a form of "acting out" behavior [9].

Another common comorbidity of ADHD is CD. Features of CD such as aggression to people and destruction of properties [34] explicate the connection with bullying behavior. Conduct problem rather than hyperactivity or impulsivity was found to be a significant predictor for peer victimization [35], providing further evidence that the association between ADHD and bullying behavior may be mediated by the association between ADHD and CD. Nevertheless, predominantly hyperactive and inattentive ADHD symptoms remained significant even after controlling for the possible confounding effect of CD. Possibly, ADHD symptoms may be the main contributing factor in bullying behavior initially, but the development of CD continues to perpetuate or worsen the bullying problem in adolescence. To what extent ADHD and CD contributes independently to the bullying problem cannot be answered by this study.

On the other hand, ADHD symptoms (combined) reported by adolescents and teachers were protective against bullying behavior. A possible explanation is that the correlates of ADHD such as poor social skills and lack of supportive peers [8] may in fact be the factors that protect the adolescents from bullying others rather than the ADHD symptoms itself.

Previous study found that parents of bully–victims spend significantly less time with their adolescents [10]. However, similar factor was found insignificant in this study. Duration of time spent was self-reported by parents; hence, reliability can be argued. Parents may underestimate or overestimate the actual time spent with adolescents daily. Furthermore, we only looked at the quantity but not the quality of time spent between parents and adolescents. Interestingly, paternal employment indicating less time spent with adolescents was shown to have more important impact on adolescent bullying compared to maternal employment. Regardless of the actual time spent, adolescents who perceived insufficient time together were at higher risk for bullying [36]. Internalizing behavior such as depression, anxiety and somatic complaints characterized victims and commonly seen as a consequence of being bullied [21,37,38]. Nevertheless, this study found internalizing behavior as a protective factor against bullying. Adolescents who internalized their feelings and became withdrawn and those with somatic complaints may not have the capacity to express themselves through aggressive behavior such as bullying. They may also have anxiety

feeling that makes it very difficult to bully others [39], hence protecting them from the act of bullying.

4.1. Limitations

The cross-sectional nature of this study limits interpretations of findings as causality cannot be established. Bullying behavior was reported by the adolescents only through self-reported questionnaire which may produce information bias. We recommend that for future studies, multiple informants and cross-informants from peers, parents and teachers should report bullying behavior, which would minimize bias in self-report of unfavorable behavior among adolescents. Adolescents may also minimize their involvement in bullying activity as such behavior is not well accepted in our society. ADHD symptoms reported by different informants may create reliability problems leading to difficulty in interpreting the findings.

4.2. Clinical implications

This study provides further information on bullying behavior particularly among adolescents in Malaysia. Understanding of the risk and protective factors allows for an effective management of the problem. At present, victims usually get the attention and empathy while bullies are punished. It is time that bullies should be given similar attention as victims in order to curb the bullying problem more effectively. Counseling instead of punishment should be considered to prevent similar behavior from recurring in the near future. Early detection of ADHD symptoms and internalizing behavior would allow appropriate management of the underlying problem that leads to bullying behavior. Public awareness on bullying problem should be increased. The time has come for Malaysian schools to adopt early intervention program for bullying problem as established in the Western countries, with strong consideration and emphasis on factors that are unique to the local population and culture.

5. Conclusion

In conclusion, adolescents with involvement in bullying behavior demand serious attention. Identifying factors linking to bullying behavior, in particular factors distinctive to the local population, facilitates in strategizing effective interventions for school bullying among adolescents in Malaysian schools.

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