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Stop bullying! Does gender influence bullying and bully victims?

The problem and the aims of the study. Every student should not be afraid to go to school because of harassment and parents should not be worried that their children will be bullied while at school. This study aimed to examine whether gender influences Malaysian school students of being bullies or bully victims.

Research methods. The design of a cross sectional survey using a questionnaire for the data collection process to identify the influence between the study variables was conducted. Dependent study variables consisted of bullies (physical, verbal, anti-social & cyber) and bully victims (physical, verbal, anti-social & cyber). While the independent variable was gender (male & female). A total of 700 samples were involved in this study consisting of students aged 13, 14 and 16 years (students aged 15 and 17 years were not involved in the study as they were national examination candidates). A set of questionnaires containing 61 items measuring four constructs of bullying (physical, verbal, anti-social & cyber) as well as 60 items measuring four constructs of bully victims. The sample consisted of 349 males (49.9%) and 351 females (50.1%).

Results. Independent t-test analysis as a whole showed that there was a significant difference in the tendency to be a bully among students based on gender, $t(689) = 2.69$, $p < .05$. Data showed male students were more likely to be bullies than female students. The finding of an independent sample t-test showed that there was no significant difference in the tendency to be a bully victim among students based on gender $t(689) = 1.23$, $p > .05$. However, there was a tendency to become bully victims among students based on gender for the categories of physical bullying ($p < .05$, $p = .000$) and cyber bullying ($p < .05$, $p = .015$).

In conclusion students' tendency to become bullies and bully victims can occur among male or female students. Every individual should have the right to be free from being oppressed or deliberately humiliated either in school or in society.

Keywords: bullying, bully victims, gender, physical, verbal, anti-social, cyber, school bullying phenomena

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Introduction

The United Nations, Educational, Scientific and Cultural Organization (UNESCO) [1] claims that 246 million adolescents are involved in some form of school violence each year. The World Health Organization (WHO) [2] states that violence in schools is an ongoing phenomenon worldwide. Violence is defined by the WHO [2] as a violent act that uses physical force or threats that will result in injury, death, psychological harm, disability or dearth. Violence can involve physical, sexual, psychological or negligence. However, according to K. L. Barret et al. [3] the definition of violence in schools has not yet been agreed upon as a crime. In fact, criminologists have defined violence in schools with a variety of distinctive meanings; for example, Danner and Carmody [4] define violence in schools as violence that occurs around schools. Meanwhile, D. S. Elliot et al. [5] define violence in schools as a threat and use of physical force with intent to cause physical injury and damage to others.

According to a report by UNESCO [1] data from Europe, North America, Australia and Asia showed that bullying is the most dominant form of school violence and 80% of primary school students in the world are involved with bullying cases in the classroom. WHO [2] found that teenagers around the world bully at least once a week. Meanwhile the UNICEF [6] reported that bullying is a worldwide problem where data collected by various surveys from 106 countries showed that teenagers who claimed they were involved in bullying cases ranged from 7% in Tajikistan to 74% in Samoa. In another survey, 14 out of 67 low-to middle-income countries showed that half of the teenagers there were also involved in bullying cases.

Malaysia is also affected by the phenomenon of bullying. In 2012, the Ministry of Education released data that a total of 4159 or 3.88 % of all school students in Malaysia were involved in bullying. In 2016, the Ministry of Education [7] issued a statement showing there were more than 14,000 cases of bullying in schools across the states between 2012 and 2015 where most of the cases involved physical abuse. Acts of bullying that occur among students can affect health such as physical injuries, permanent injuries including death (M. Anderson et al. [8]) isolating oneself from socialization (S. Sharp) [9] affecting academic quality (G. M. Glew et al. [10]) and resulting in difficulty building socialization relationships with the school community (S. Yoneyama, K. Rigby [11]) as well as causing mental health problems (K. Kumpulainen, E. Rasanen [12]).

Bullying phenomena

For decades, bullying and peer harassment have been an issue of concern to many educators [13]. The issue of bullying and being bully victims in schools is not only a serious problem in Malaysia, but is also a phenomenon that worries students, parents, teachers and school management in the United States and around the world [14]. It is a type of violence that threatens the social well-being of students. In the United States, about one in five elementary school students and one in ten high school students have been bullied [15]. In Sweden, 15% of school students are involved in this bullying phenomenon as either being bullies or bully victims and a large proportion are involved as assistants to bullies or who defend bully victims [16].

Past studies reported that impact of bullying have led to the occurrence of depression, anxiety, avoidance of school, as well as low self-esteem among students who become bully victims [17]. In Malaysia, a study was conducted by H. Junainor et al. [18] to study bullying in primary schools among students aged between 7 - 12 years. The study found that 40% of the study sample had a tendency to bully and verbal type bullying was the highest. This was followed by physical bullying. This study also showed that there was a strong relationship between bullying locations and the types of bullying. Break time was the peak time for bullying. Bullying behavior can occur in primary as well as secondary schools. It can also occur in urban or rural schools [19]. In addition, bullying has an impact in the short and long term. These effects include physical, emotional, mental aspects. Examples of long-term effects are the occurrence of disturbed levels of mental health, depression and emotional disturbances that last into adulthood.

Research questions

1. Is gender a factor in the tendency to be a bully?
2. Is gender a factor in the tendency to be a bully victim?

Research design

This study used a cross sectional survey method that involved a questionnaire for the data collection process to identify the direction and influence between the study variables [20]. This method also explained the phenomena that occur through the influence between the variables studied [21]. This descriptive-correlation study was used to examine the strengths and determine the influence between the study variables [20]. Once information about the correlations between the variables studied was obtained, the use of descriptive-correlation design could predict the phenomenon that was the focus of the study [21]. For data collection process, the cross sectional survey method was chosen because this study involved the collection of data in a wide area and variables that could not be observed directly (latent variables) but could be identified by researchers using questionnaires [21; 22].

This study used a quantitative approach. According to A. Rubin, E. R. Babbie, [23], a quantitative method emphasizes objective measurement and mathematical statistics or numerical analysis collected through selection, questionnaires and surveys or by manipulating existing statistical data using computational techniques. Further, A. Rubin, E. R. Babbie [23] added that quantitative research focuses on the collection of numerical data and generally across groups of people or to explain specific phenomena.

Population and sampling

A population is a group of institutions or individuals that have similar characteristics, while the target population of the study is the group that will be used in the study aims to make generalizations about the phenomenon based on the selected sample [20]. The study population consisted of all Form one, two and four students from 23 secondary schools in Perlis. The rationale for selecting Perlis secondary school students as the study population was based on the findings of a study conducted through the National Health and Morbidity Survey (NHMS) by the Institute of Public Health (Ministry of Health Malaysia) [24]. The result of this study found that the statistics of bullying cases in the State of Perlis has increased from 15.3% cases in 2012 to 15.8% cases in 2017. The State of Perlis is ranked 9th highest

compared to all states in Malaysia (Refer Table1). The rationale for the selection of Form one, two and four students aged 13 to 16 years was based on a study finding by UNICEF [6] on adolescents in 106 countries which found adolescents aged 13 to 16 years were often involved in bullying.

Table 1

Percentage of bully cases according to states in Malaysia

States	Percentage of bully cases in 2017 (%)
Pahang	22.0
Federal Territory of Putrajaya	19.7
Selangor	18.6
Sabah	18.3
Federal Territory of Labuan	18.2
Negri Sembilan	17.2
Perak	16.7
Federal Territory of Kuala Lumpur	16.0
Perlis	15.8
Malacca	15.5
Sarawak	15.5
Terengganu	14.7
Penang	13.8
Kedah	13.4
Johor	13.9
Kelantan	12.5

In addition, the results of a study through the National Health and Morbidity Survey (NHMS) by the Institute of Public Health (Ministry of Health Malaysia) [24] found that the percentage of bullying among Form one students was the highest (22.8% cases), followed by Form two (19.0% cases), Form three (15.0% cases), Form four (13.4% cases) and Form five (10.2% cases). Meanwhile Perlis also showed the highest percentage of bullying among Form one students (25.5% cases), followed by Form two (18.8% cases), Form three (13.5% cases), Form four (12.6% cases) and Form five (8.1%). Therefore, the researchers have randomly selected a sample aged between 13 to 16 years based on the statistics displayed in Table 2 which showed that this age group has a high tendency towards bullying cases.

Table 2

Percentage of bully cases based on Forms/Ages

Forms/Ages	Percentage of bully cases in 2017 (%)	
	Malaysia	Perlis
Form 1 (13 years old)	22.8	25.5
Form 2 (14 years old)	19.0	18.8
Form 3 (15 years old)	15.0	13.5
Form 4 (16 years old)	13.4	12.6
Form 5 (17 years old)	10.2	8.1

As such, the researchers have decided to select students from Form one (13 years), Form two (14 years) and Form four (16 years) who attended daily secondary schools throughout the State of Perlis (23 schools). The total population was 10 333 students but only 620 sample students were involved, based on J. Gill et al. [25] as in Table 3 below:

Table 3

Sample size based on required accuracy (J. Gill et. al. [25])

Population size	Sample
50	46
75	67
100	87
150	122
200	154
250	181
300	206
400	249
500	285
600	314
700	340
800	362
1000	398
1500	459
2000	497
3000	541
5000	583
10000	620
25000	643
50000	652
100000	656

A sample is a sub-group of the target population of a study that is involved in the process of making generalizations about the target population selected through a specific sampling method [23]. The sample selection method using stratified sampling technique is the process of dividing a sample in a population into samples that do not overlap and have uniform or almost the same characteristics [26]. The study divided the population according to gender and age to be selected as the study sample. The total selection of the study sample based on gender and age is presented in Table 4 below.

The determination of the number of student samples was based on the number of respondents required for the statistical analysis conducted (J. Gill et. al. [25]). The statistical analysis approach of J. Gill et. al. [25] was selected to determine the optimal number of study respondents [20]. According to L. Cohen, et. al. [26] the Cohen statistical analysis approach is a frequently used approach for the process of determining the study sample size.

Table 4

Sampling based on gender and age

Number of students required	
Form 1 (13 years old): 5 (male) + 5 (female) = 10 students Form 2 (14 years old): 5 (male) + 5 (female) = 10 students Form four (16 years old): 5 (male) + 5 (female) = 10 students Total = 30 students per school	30 students X 23 schools = 700 sample

Research instrument

A questionnaire containing 125 items was used in this study. The instrument consisted of three parts where part A contained five items to measure the demographic profile of the respondents. Part B contained 61 items to measure four constructs of bullying according to the category of bullying, namely physical, verbal, anti-social and cyber while Part C contained 60 items to measure four constructs of bully victims according to the category of bullying, namely physical, verbal, anti-social and cyber. The order of items in the questionnaire is as in Table 5. The instruments to measure the tendency to be bullies and bully victims according to the categories of bullying were modified and translated by researchers who have combined the items made by other researchers as displayed in Table 5.

Table 5

Number of Items Based on Constructs in the Study Instrument

No. of items	Items	Constructs	Instrument
Part A			
1 until 4	4	Demographic	
Part B			Aggression Scale, Illinois Bully Scale - Orpinas, P. K. (2001)
1 until 28	28	Physical bully	Adolescent Peer Relations Instrument (Section A) - Parada, R. (2000)
29 until 41	13	Verbal bully	
42 until 55	14	Anti-social bully	Exposure to Violence and Violent Behavior Checklist - Landsberg, G. (1996)
56 until 61	6	Cyber bully	Illinois Bully Scale - Espelage, D. I. (2001) School Life Survey (part 1) - Chan, J. H. F. (2002)
Part C			
62 until 76	15	Victim of physical bully	Perception of Teasing Scale - Thompson, J. K. (1995)
77 until 92	16	Victim of verbal bully	Victimization Scale - Orpinas, P. K. (1993)
93 until 108	16	Victim of anti-social bully	School Life Survey (part 11)- Chan, J. H. F. (2002)
109 until 122	13	Victim of cyber bully	Bully Survey (Student Version) - Swearer, S. (2003)

To measure each item, respondents were required to state the degree of frequency for each item statement using a five-point Likert type scale; scale 1 (never), scale 2 (rarely), scale 3 (sometimes), scale 4 (quite often) and scale 5 (always) adapted from K. Bosworth et. al. [27], W. M. Vagias [28] which took into account the suitability of the item. As for demographic information, the researchers used a nominal scale to obtain the percentage of student profiles.

Reliability and validity

Reliability test was conducted aimed at determining the level of internal consistency of study constructs [29]. The overall cronbach's alpha (α) value was used to determine the level of internal consistency of the study construct measured by the instrument [29]. This study set an overall alpha value of .60 and above as sufficient to achieve the required level of reliability [29]. The reliability test (Table 6) showed that the cronbach alpha values for the eight study constructs reached the level of reliability as a good measurement construct i.e. exceeding .70 [29]. Cronbach alpha values between .60 to .70 are the minimum acceptable level of reliability and are used in data analysis to answer research questions [26].

Table 6

Reliability based on constructs

Constructs	Mean	SD	Reliability
Physical Bully	1.41	.32	.89
Physical Bully Victims	1.60	.51	.90
Verbal Bully	1.68	.60	.91
Verbal Bully Victims	1.99	.65	.90
Anti-Social Bully	1.34	.44	.88
Anti-Social Bully Victims	1.70	.60	.91
Cyber Bully	1.44	.51	.77
Cyber Bully Victims	1.44	.52	.91

Data Analysis Technique

Independent sample t-test was used to analyze the study data using mean score as the basis of calculation. The T-test is a parametric test used when the data collected is in the form of a normal distribution. It is suitable with this study that examined the differences between male and female students on bullying and bully victims. The two gender groups of students are separate (not dependent on each other), so the samples are called independent samples [20].

Results

Demographic data

The profiles of the respondents as found in the questionnaire were gender, ethnicity, religious belief, and age.

Gender

Table 7 shows that a total of 349 (49.9%) out of the total 700 respondents were male and 351 (50.1%) were female.

Table 7

Distribution of respondents based on gender

Gender	N	%
Male	349	49.9
Female	351	50.1
Total	700	100.0

Ethnicity

Table 8 shows that a total of 633 (90.4%) out of a total of 700 respondents were Malay, 32 respondents (4.6%) were Chinese, 16 (2.3%) were Indian and 19 (2.7%) were of other ethnicities.

Table 8

Distribution of respondents based on Ethnicity

Ethnicity	Frequency	Percentage
Malay	633	90.4
Chinese	32	4.6
Indian	16	2.3
Others	19	2.7
Total	700	100.0

Religious Belief

Table 9 shows that a total of 633 (90.4%) out of a total of 700 respondents were Muslims, 51 (7.3%) were Buddhists and 16 (2.3%) were Hindus.

Table 9

Distribution of respondents based on Religious Belief

Religious Belief	Frequency	Percentage
Islam	633	90.4
Buddhism	51	7.3
Hinduism	16	2.3
Total	700	100.0

Age

Table 10 shows that a total of 234 (33.4%) out of the total 700 respondents were 16 year-olds, while for 13 year-olds and 14 year-olds the respondents were 233 (33.3%) each.

Table 10

Distribution of respondents based on Age

Age	N	%
13 years old	233	33.3
14 years old	233	33.3
16 years old	234	33.4
Total	700	100.0

Research question 1: Is gender a factor in the tendency to be a bully?

Table 11 shows the t-test result of an independent sample of the tendency to be a bully among students by gender. After an independent statistical analysis of the t-test was conducted, the overall Levene test was found to be insignificant ($p > .05$). The overall result showed that the variance between male and female students was similar and had met the assumption of the homogeneous variance between male and female students

in the tendency to be bullies. After the independent sample t-test was done, the overall finding showed that there was a significant difference in the tendency to be a bully among students based on gender, $t(689) = 2.69$, $p < .05$. The mean tendency to be a bully for male students (1.61) was different from the mean tendency to be a bully for female students (1.49). Further, the finding showed that there was a significant difference in the tendency to be a bully among students based on gender for the categories of physical bully ($p < .05$, $p = .001$) and verbal bully ($p < .05$, $p = .011$). However, there was no significant difference in the tendency to be a bully among students based on gender for the category of anti-social bully ($p > .05$, $p = .145$) and cyber bully ($p > .05$, $p = .145$). In conclusion, overall there was a significant difference in the tendency to be a bully among school students in Malaysia based on gender where male students are more likely to be bullies than female students.

Table 11

Sample-independent t-test results of tendency to be bullies based on gender

Types of bully	Gender	N	Mean	SD	df	t	Sig.
physical	Male	349	1.68	.84	687.57	3.42	.001
	Female	351	1.47	.75			
verbal	Male	349	1.87	.79	698	2.54	.011
	Female	351	1.71	.85			
Anti-social	Male	349	1.49	.73	698	1.46	.145
	Female	351	1.41	.74			
cyber	Male	349	1.46	.73	698	1.46	.145
	Female	351	1.39	.67			
Total	Male	349	1.61	.62	698	2.69	.007
	Female	351	1.49	.65			

Research question 2: Is gender a factor in the tendency to be a bully victim?

Table 12 shows the results of an independent sample t-test on the tendency to be a bully victim among students by gender. After independent sample t-test analysis was performed, the overall Levene test was found to be insignificant ($p > .05$). The overall result showed that the variance between male and female students was similar and had met the assumption of the homogeneous variance between male and female students in the tendency to be bully victims. After the independent sample t-test was performed, the overall finding showed no significant difference in the tendency to be a bully victim among students based on gender, $t(689) = 1.23$, $p > .05$. The mean tendency to be a bully victim for male students (1.68) was almost the same as the mean tendency to be a bully victim for female students (1.51). Furthermore, the finding showed that there was a significant difference in the tendency to be a bully victim among students based on gender for the categories of physical bullying ($p < .05$, $p = .000$) and cyber bullying ($p < .05$, $p = .015$). However, there was no significant difference in the tendency to be a bully victim among students based on gender for the categories of verbal bullying ($p > .05$, $p = .051$) and anti-social bullying ($p > .05$, $p = .793$). In conclusion, overall there was no significant difference in the tendency to be a bully victim among students based on gender among school students in Malaysia.

Table 12

T-test results of independent samples of tendency to be bully victims based on gender

Category of bully victims	Gender	N	Mean	Sd	df	t	Sig.
physical	Male	349	1.60	.76	665.71	4.40	.000
	Female	351	1.38	.61			
verbal	Male	349	2.00	.84	698	-1.96	.051
	Female	351	2.12	.85			
Anti-social	Male	349	1.71	.82	698	.26	.793
	Female	351	1.70	.84			
cyber	Male	349	1.36	.70	676.83	2.45	.015
	Female	351	1.32	.59			
Total	Male	349	1.68	.67	698	1.23	.218
	Female	351	1.62	.61			

Discussion

The finding of this study proved that there was a significant difference in the tendency to be bullies among students based on gender. The mean tendency to be a bully for male students was higher than the mean tendency to be a bully for female students. In detail, the finding showed that there was a significant difference in the tendency to be a bully among students based on gender for the categories of physical bully ($p < .05$, $p = .001$) and verbal bully ($p < .05$, $p = .011$). However, there was no significant difference in the tendency to be a bully among students based on gender for the categories of anti-social bully and cyber bully. This study also found that there was no significant difference in the tendency to be a bully victim among students based on gender. The mean tendency to be a bully victim for male students (1.68) was almost the same as the mean tendency to be a bully victim for female students (1.51). In detail, the finding showed that there was a significant difference in the tendency to be a bully victim among students based on gender for the categories of physical bullying, cyber bullying and anti-social bullying.

Gender is a factor in the tendency to be a bully

The finding of the study found that there was a significant difference in the tendency to be a bully among school students in Malaysia based on the gender where male students were more likely to be bullies than female students. This finding is in line with studies conducted by J. Archer [30], D. Olweus [31] stating that gender differences are a factor to aggressive behaviors such as bullying among children and adolescents where male children and adolescents were found to be more likely to engage in negative behaviors in physical form, while female children and adolescents were found to be more likely to engage in betrayal in a friendship (anti-social bullying). In conclusion, male students tend to be bullies because of their stronger physical factors compared to female students.

Gender is not a factor in the tendency to be a bully victim

The finding of the study found that there was no significant difference in the tendency to be bully victims among school students in Malaysia based on gender. This finding is in

line with the studies of several other researchers who proved that gender is not a factor to a person becoming a bully victim. In contrast, P. R. Smokowski, K. H. Kopasz [32]; A. D. Pellegrini et. al. [33] found that those who are passive or who are easily submissive and obedient to others as well as having the experience of witnessing bullying behavior are at a high risk to become a bully victim [14; 34; 35]. In addition J. Juvonen, S. Graham [36] found that small physical size, unstable emotional state, and poor family relationships are factors that can cause a person to become a bully victim. Meanwhile according to D. L. Espelage, S. M. Swearer [37] and H. Shams, G. Garmaroudi and S. Nedjat [38], several factors that can cause a person to be a bully victim are when the individual is physically weak, has low self-worth, has a negative perception, less efficient in socializing, has poor social skills, has poor problem-solving ability, depressed, has anxiety problem, experiences cold relationship between mother and child, lacks attention from parents, lacks observation from parents and involves in child abuse. The same thing was also noted in a study conducted in the United States, about 30% of students were recorded as bully, victim or both [39]. In conclusion, the factors that cause a person to become a bully victim include internal factors, physical factors and environmental factors such as family factors.

Conclusion

In summary, this study found that gender plays a role in a student's tendency to be a bully. In fact, in Malaysia, male students are more likely to be bullies than females. While the findings of the study also found that gender does not show a tendency to be a bully victim. This means that both sexes whether male or female have an equal risk of being bully victims at school. These findings proved that there is a inclination for students to display bullying behaviors or become bully victims. Therefore, the school should take the issue of bullying seriously by emphasizing the provision of a safe, peaceful learning environment and further, by planning programs and campaigns to stop bullying behavior in schools. The phenomenon of bullying is not an experience that any child in the world should go through. Children should grow up in a safe environment; schools and the community should be aware that bullying can disrupt the normal developmental process of children. If society wants to help children grow up healthy and achieve emotional well-being, the school and the community, including parents, need to play a role and have the courage to face the problem of bullying before it is too late. This is in line with the fact that Loch, A. P. et. al. [40] who conducted a study of bullying in Brazil acknowledged that planned intersectoral involving the cooperation of parents and the education sector to prevent bullying can reduce the negative impact on students health.

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