

ORIGINAL ARTICLES

Students who are both victims and perpetrators of physical violence at a private high school in rural Northern Vietnam: Prevalence and Socio-Demographic Correlates

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ABSTRACT

Backgrounds: Physical violence in schools is a fairly common problem in Vietnam. However, current studies pay little attention to violence in private schools.

Objectives: The study aims to estimate the prevalence and related sociodemographic factors of school physical violence among students at Hiep Hoa 5 private high school in Bac Giang province in Northern Vietnam.

Methods: This was a school-based cross-sectional survey using a random sample technique with a multistage process from April to June 2019.

Main findings: 412 students participated in the study, and the results indicated that 55/412 (13.3%) students were both perpetrators and victims of school violence. While 16.7% of students performed physical violence, 27.9% of students suffered physical violence by other students in the past six months. Experiencing physical violence was associated with sociodemographic characteristics such as gender, grade, exposure to physical violence in the media, time playing action games and witnessing violent events in the living place...

Conclusions: More than 13% of students are perpetrators and victims of physical violence by their peers at a rural private high school. This prevalence is significantly correlated with individual factors. The results suggest that a greater focus on young people's educational activities should be provided to direct their development, including preventing physical violence.

Keywords: Physical violence, high school students, perpetrators and victims.

INTRODUCTION

Interpersonal violence has been an enormous global public health problem. The United Nations Children's Fund (UNICEF) reported that 1 in 4 children in the world had experienced severe and sustained physical violence (1). Furthermore, this mistreatment could cause detrimental consequences in childhood, adolescence, and adulthood, including mental

disorders and becoming perpetrators of violence. It is undeniable that these studies offer useful recommendations to solve this situation as they conduct surveys and consider the co-occurrence and inter-relationships among multi-types of violence. However, these researches overlook the fact that a person may be a victim and a perpetrator simultaneously. This noticeable point may help to reduce risk factors and develop a safer educational environment.



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Students spend most of their day in the care of adults in educational settings than anywhere else outside of their homes. Thus, schools have a responsibility to protect students from violence. The adults who oversee and work in schools are required to provide safe environments that support and promote students' dignity and development (2). The school context is not exempt from violent victimizations and perpetrators experiences, especially among the students. Physical violence was the second-highest form of violence experienced by students who participated in the School-related gender-based study conducted in five nations in Asia (Cambodia, Indonesia, Nepal, Pakistan and Vietnam) in 2015 (3). Around half of all students involved in the physical violence are both victims and perpetrators. They are the most troubled group of children involved in this manifestation of violence (1).

According to the Centers for Disease Control and Prevention, some factors can increase the risk of a youngster engaging in violence at school, including prior history of violence, association with delinquent peers, poor function of family and low grades in school (5). At the individual level, self-control, personal habits, and peer relationships predicted violent perpetrators, which in turn contributed to an increased risk of bullying victimization. Besides, people offending others have a powerful independent effect on victimization by background characteristics, lifestyle risk, and low self-control (6). At the family level, the home environment is related to behavior and relations of youngsters with others, including secure parental attachment, involvement and support. The children who witnessed parental violence are more likely to perpetrate juvenile violence (7, 8). Besides, positive relationships between students and peers are evidence of lower violence rate in schools (9). The peer

social networks affect students, including young people's position in their groups and positive or negative peer pressure (10).

In Vietnam, the current literature has focused on adolescents facing one or more types of violence by classmates and other peers. In 2015, the School-related gender-based study which was conducted by International Centre for Research on Women indicated that the percentage of students experiencing physical violence at Vietnamese schools in the last six months is 30%, higher than that in Pakistan (18%) and Cambodia (22%) (3).

Hiep Hoa is a rural district situated in Bac Giang, a northern mountainous province of Vietnam. Hiep Hoa 5 high school is a rural private school located in the center of the district. Researches regarding student physical violence have not been conducted in this school. We aim to estimate the prevalence of physical violence victims and perpetrators and examine the correlates with sociodemographic characteristics at a rural private high school in Northern Vietnam.

METHODS

Study design: The study used a cross-sectional survey design and was conducted from April to June 2019.

Sample size: The average class size of Hiep Hoa-5 private school varied from 45 to 50 students for each class. Thus, total 9 classes were selected randomly and 3 classes for each grade. All students in the selected class were invited to participate in the research. The study's inclusion criteria were to be a student voluntarily sign in a consent form to participate in the research and attend one of the selected classes. Above all, the guardian has allowed their children to participate in this study by signing another

consent form. 412 students were recruited to fill in a self-reported questionnaire.

Variables

In this study, students experiencing physical violence in the last six months are defined as performing physical force and are faced with this action of other students over six months at school. It means that they are both victims and perpetrators of school physical violence in the last six months. The phenomenon of physical violence is focused on the peers' relationship, ignoring other connections of teachers, school staff, or parents inside the school.

Dependent variable

Physical violence victimization was a behavior-based self-report measure with a yes-no question asking respondents whether they had been victimized during the last 6 months: "Have you ever been scratched, pushed, shoved, threw, hair-pulled, slapped, punched, hit, burned... by a friend?". Physical violence perpetrator was measured through a self-report question "Have you ever scratched, pushed, shoved, thrown, hair-pulled, slapped, punched, hit, burned... your friend?". A student who was both of physical violence victims and perpetrators respond "yes" for 2 questions above.

Independent variables

Based on the literature, the potential factors associated with violence are those of the individual, the family, and peers. Personal information included age, gender, grade, and habits. The family factors were family composition, physical punishment, and witnessing violent events among family members. Peer relationship characteristics were the number of close friend groups and witnessing violent events among the tight friend groups. All of those elements were collected using a structured questionnaire.

Data management and analyses

Data were entered using Epidata 3.1 and performed by using Stata 14. The study used absolute values and percentages to describe categorical variables. We used logistic regression to examine associations between the prevalence of a student who is both of physical violence victims and perpetrators and sociodemographic correlates. Hosmer & Lemeshow test was used to examine the relevance of the model with $p > 0.05$. The level of significance was set at $\alpha = 0.05$.

Ethical considerations

The study has been reviewed and approved by the Institutional Review Board of the Hanoi University of Public Health (Application number 149/2019/YTCC-HD3 on April 17, 2019). Ethical issues were carefully planned, including informed consent and privacy for participants. The research involved the collection of sensitive data from young people who were under 18 years old. Thus, it was necessary to have parental or legal guardians' agreement to allow their children to participate in research. Besides, participants' involvement was voluntary without any incentives.

RESULTS

A total of 9 classes were selected, and 412 students were eligible and invited to participate in the study. Table 1 presents sociodemographic characteristics of respondents. The mean age of participants was 17.17 (SD=0.88). The proportion of female students was higher than that of males (59.95 % and 40.05%). The number of students in each grade was relatively equal in the sample size. Regarding students' habits, most students regularly or very often exposed to physical violence in the media (60.44%).

Most students spent less than or equal to 2 hours playing action games (89.32%). Nearly 90% of students have lived with both parents. The majority of students never/seldom/sometimes witnessed violent events among family members (98.06%). Besides, only 2.18% of students were regularly/very

often physically punished by parents. More than 70% of the students had more than 2 close friend groups. However, only 3.4% of students regularly/very often witnessed violent events among their friends. In the living place, 2.67% of students regularly/very often witnessed their neighbors' violence.

Table 1. Sociodemographic characteristics of respondents (N=412)

Factors	Total n (%)	Male n (%)	Female n (%)
Total	412 (100)	165 (40.05)	247 (59.95)
Age (Mean ± SD)	17.15 ± 0.88		
Grade			
Grade 10	132 (32.04)	67 (27.12)	65 (39.4)
Grade 11	140 (33.98)	90 (36.44)	50 (30.3)
Grade 12	140 (33.98)	90 (36.44)	50 (30.3)
The extent of exposure to physical violence media			
Never/ Seldom/ Sometimes	163 (39.56)	87 (35.22)	76 (46.06)
Regularly/Very often	249 (60.44)	160 (64.78)	89 (53.94)
Time for playing action games per day			
Less than or equal to 2 hours	368 (89.32)	207 (83.81)	161 (97.58)
More than 2 hours	44 (10.68)	40 (16.19)	4 (2.42)
The extent of witnessing violent events in the living place			
Never/ Seldom/Sometimes	401 (97.33)	238 (96.36)	163 (98.79)
Regularly/Very often	11 (2.67)	9 (3.62)	2 (1.21)
Family composition			
Only one parent/None of the parents	42 (10.19)	20 (8.1)	22 (13.33)
Both parents	370 (89.81)	227 (91.9)	143 (86.67)
The extent of witnessing violent events among family members			
Never/ Seldom/ Sometimes	404 (98.06)	243 (98.38)	161 (97.58)
Regularly/Very often	8 (1.94)	4 (1.62)	4 (2.42)
The extent of the family's physical punishment			
Never/ Seldom/Sometimes	403 (97.82)	241 (97.57)	162 (98.18)
Regularly/Very often	9 (2.18)	6 (2.43)	3 (1.82)
Number of the friend groups			
Less than or equal to 2 groups	303 (73.54)	171 (69.23)	132 (80)
More than 2 groups	109 (26.46)	76 (30.77)	33 (20)
The extent of witnessing violent events among the close friend groups			
Never/ Seldom/ Sometimes	398 (96.6)	239 (96.76)	159 (96.36)
Regularly/Very often	14 (3.4)	8 (3.24)	6 (3.64)

The prevalence of students experiencing physical violence in the last 6 months

The prevalence of students being a perpetrator

was 27.91%, which was higher than that for students being a victim (16.75%) and higher than that for students being both 2 types (13.35%).

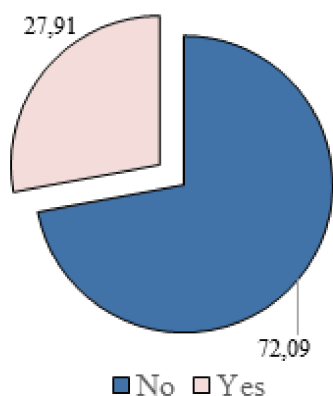


Chart 1. The prevalence of student performing physical violence

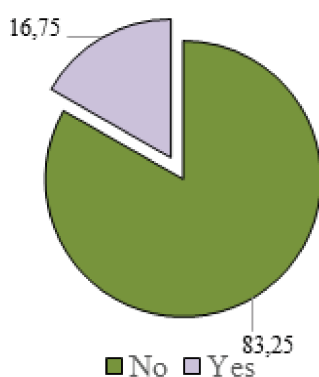


Chart 2. The prevalence of student surfacing physical violence

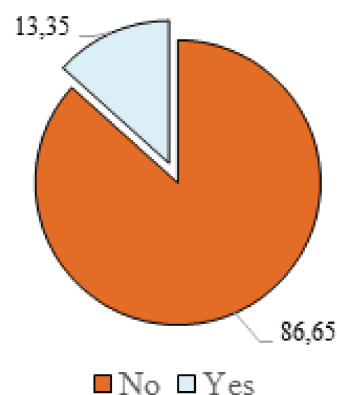


Chart 3. The prevalence of student experiencing physical violence

Sociodemographic correlates of students experiencing physical violence

Table 2 shows several factors associated with physical violence among high school students. The factors which positively connect with the prevalence of students who are both a victim and a perpetrator includes male ($p=0.034$; 95% CI = 0.28-0.97); studying in highest grade at high school ($p = 0.016$; 95% CI Grade 12 = 1.19-5.31); regular exposure to physical violence media ($p=0.024$; 95% CI = 1.10- 3.99); time for playing action games more than 2 hours per day ($p = 0.019$; 95% CI = 1.16-5.20) and regular witness violent events in the living place ($p = 0.005$; 95% CI = 1.72-19.8).

Then, we continued to conduct Multivariable logistic regression analysis with the output variable as students experiencing physical

violence. A multivariate logistic model was developed to examine the correlates between independent sociodemographic factors and the prevalence of students experiencing physical violence. The results show a significant Multivariable model with the following variables: studying in the highest grade in high school, regular exposure to physical violence media and regular witnessing violent events in the living place. Students studying in the highest grade were 2.54 times more likely to experience physical violence ($p = 0.024$; 95% CI = 1.15-5.62). Students regularly exposed to media related to physical violence were 2.0 times more likely to become physical violence perpetrators and victims ($p = 0.037$; 95% CI = 1.04-3.85). Students witnessing regularly violent events in the living place were 5.85 times more likely to experience physical violence ($p = 0.006$; 95% CI = 1.67-20.47).

Table 2. The association between students experiencing physical violence and different sociodemographic groups at Hiep Hoa 5 private high school

Characteristics		Students experiencing physical violence		Univariate Analysis		Multivariable Analysis	
		No (n,%)	Yes (n,%)	OR	P 95% CI	OR	P 95% CI
Gender	Male	207 (83.81)	40 (16.19)				
	Female	150 (90.91)	15 (9.09)	0.5	0.034 0.28-0.97	0.7	0.308 0.36-1.38
Grade	Grade 10	121 (91.67)	11 (8.33)				
	Grade 11	122 (87.14)	18 (12.86)	1.62	0.23 0.74-3.58	1.65	0.241 0.71-3.79
	Grade 12	114 (81.43)	26 (18.57)	2.51	0.016 1.19-5.31	2.54	0.024 1.15-5.62
The extent of exposure to physical violence media	Never/ Seldom/ Sometimes	149 (91.41)	14 (8.59)				
	Regularly/Very often	208 (83.53)	41 (16.47)	2.1	0.024 1.10- 3.99	2.0	0.037 1.04-3.85
Time for playing action games per day	Less than or equal to 2 hours	324 (88.04)	44 (11.96)				
	More than 2 hours	33 (75.00)	11 (25.00)	2.45	0.019 1.16-5.20	1.82	0.161 0.79-4.19
The extent of witnessing violent events in the living place	Never/ Seldom/ Sometimes	351 (87.53)	50 (12.47)				
	Regularly/Very often	6 (54.55)	5 (45.45)	5.85	0.005 1.72-19.8	5.85	0.006 1.67-20.47
Family composition	Only one parent/None of the parents	37 (88.10)	5 (11.90)				
	Both parents	320 (86.49)	50 (13.51)	1.17	0.772 0.43-3.08	1.10	0.862 0.37-3.26
The extent of witnessing violent events among family members	Never/ Seldom/ Sometimes	350 (86.63)	54 (13.37)				
	Regularly/Very often	7 (87.50)	1 (12.50)	0.93	0.943 0.11-7.67	0.44	0.521 0.04-5.32
The extent of the family’s physical punishment	Never/ Seldom/ Sometimes	350 (86.85)	53 (13.15)				
	Regularly/Very often	7 (77.78)	2 (22.22)	1.89	0.09 0.38- 9.32	1.5	0.647 0.27-8.26
Number of friend groups	Less than or equal to 2 groups	264 (87.13)	39 (12.87)				
	More than 2 groups	93 (85.32)	16 (14.68)	1.17	0.654 0.62- 2.18	0.95	0.881 0.48-1.87
The extent of witnessing violent events among the close friend groups	Never/ Seldom/ Sometimes	347 (87.19)	51 (12.81)				
	Regularly/Very often	10 (71.43)	4 (28.57)	2.7	0.101 0.82-9.00	0.08	0.67 0.33-5.60

Hosmer&Lemesshow test: $N=412$; $X^2=23.23$; $p=0.0164$

DISCUSSION

Prevalence of physical violence among rural private high school students

This data contributed to understanding the prevalence of physical violence among private high school students in Northern Vietnam. The proportion of students being perpetrators and victims was 13.35%, which is lower than that of students being victims (16.75%) and perpetrators (27.91%). Males experienced physical violence more than females (72.73% compares with 27.27%). Adolescents most likely to engage in violence perpetration are also most likely to be bullied, suggesting that bullies and their victims might have similar characteristics such as individual traits, behaviors, and lifestyles. A Finish study in 2007 with 14 classes from 8 schools in the town of Turku found that reactive aggression predicted higher future levels of peer victimization among boys (11). However, a study conducted on 2,616 Australian high school students from rural and urban areas in 2008 reported that relational aggression predicted increases in relational victimization among female students (12). Compared to the research conducted in seven collected high schools in Denpasar, Indonesia, since 2017 showed that among the seventy-two respondents who experienced acts of violence before, 61.1% became perpetrators of violence in the future (13).

Some factors associated with physical violence among rural private high school students

The present research showed a link between sociodemographic characteristics and the state of physical violence for both the victims and the perpetrators in a private high school. Males are more exposed to physical violence than females. Gender is associated with

the behavior and relations of students with others (14). Australian high school students' findings showed that males are less frequently victimized by a peer and commit more physically violent actions than their female counterparts (15). Additionally, studying in the highest grade at school increased the risk of becoming both a victim and a perpetrator of physical violence. A study by Dharma Arunachalam and Nguyen Diep Quy Vy in 2009 with 4705 males aged 14-25 years in Vietnam showed a difference in physical violence among different grade students at high school (10).

Students exposed to media with physical violence such as movies, clips, or social media and spending more than 2 hours per day playing action games have a significant association of victimization and perpetrators of physical violence at school. A high school study in Hanoi's suburban district in 2017 showed similar results: students who often watch action movies and play action games are more likely to commit violence than others (16). In the current study, we recognize that modern technological development is one of the leading physical violence factors. Most of the students in Hiep Hoa 5 high school have used mobile phones to access the Internet, so it becomes easier to access news and videos related to personal conflict by force. Thus, education related to the use of practical and reasonable technological devices for adolescents will improve negative behaviors and personality development.

Students who regularly witness violent events in their home area were significantly more likely to be physical violence at school. A suburban high school study in Hanoi in 2016 showed that seeing violent events in living places was a risk factor for students'

physical violence at school (17). Previous studies showed that children who are growing up in conflict areas, witnessing fighting and bullying, and seeing these behaviors frequently in others are risk factors for the youth of violence (8, 18). We should highlight that the living environment is related to the behavior and relations with others among this age group, so the roles of parents and society need to be emphasized in decrease the physical violence of young people.

Limitations

We acknowledge several limitations in this study. Firstly, the data was collected at a private high school in a rural province in North Vietnam; therefore any attempt to generalize this finding to Vietnamese adolescents should be made with caution. Secondly, collected data was based on self-reporting; hence, under or over-reporting of behavior may have affected the results; for this reason, it can be evaluated by further studies in depth by quantitative and qualitative methods. Furthermore, an additional limitation to this study is its cross-sectional design, in which it was impossible to define the temporal relationships between cause and consequence.

CONCLUSION

More than 13% of students are both perpetrators and victims of physical violence by their peers at a rural private high school in Northern Vietnam. This prevalence was significantly correlated with individual factors. These results suggest that a greater focus is needed on young people's educational activities to direct their development, including preventing physical violence. Further and large-scale studies are needed to investigate physical violence prevalence and its related factors.

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