

Violence Related Behavior and Risk Factors for Physical Fighting among Thai Youth

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Background: Youth violence is an important national and public health concern worldwide. Young perpetrators of violence may have their lives destroyed and wasted in the criminal justice system.

Objective: The aims of the present study were to determine the prevalence of violence related behavior and to identify the risk factors for physical fight among Thai youth.

Material and Method: A population based, nationally representative, cross-sectional survey was conducted in Thailand in early 2013, with 920 respondents aged between 13 to 24 years. The Thai version of the Youth Risk Behavior Surveillance System questionnaire from 3 categories, including unintentional injuries and violence, alcohol consumption, and sexual behavior, was used. Data were analyzed using frequency, percentage and Odds Ratio.

Results: The highest prevalence of violence related behaviors was during the middle and late adolescent period but the prevalence of violence on school property was highest during the early and middle adolescent period. The prevalence of violence related behaviors were higher in males, non-students, and southern region groups. The highest adjusted ORs of physical fighting was carrying a weapon (OR = 11.16, 95% CI = 6.54 to 19.04).

Conclusion: The prevalence of youth violence related behaviors emerged more in males, non-students and southern region groups. The chance of participating in physical fights increased significantly when youths showed other violence-related behaviors. Prevention programs should focus more on high risk groups and high risk behaviors.

Keywords: Youth violence, Violence related behaviors, Physical fighting

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Youth violence includes all forms of physical or mental violence, including sexual abuse, which occurs among people aged 10 to 29 years. It normally takes place outside of the home and occurs among youth who may not know each other⁽¹⁾. It has many negative impacts, and hence has become an important national and public health concern worldwide. The 2013 survey by United States' Youth Risk Behavior Surveillance System (YRBS) reported that 24.7% of high school students had been in a physical fight during the past 12 months and 17.9% had carried a weapon during the past 30 days⁽²⁾. In 2015, a nationally-representative survey of a sample of youth in grades 9

to 12 found that 22.6% reported being in a physical fight in the 12 months preceding the survey; the prevalence was higher among males (28.4%) than females (16.5%). In addition, 16.2% reported carrying a weapon on one or more days in the 30 days before the survey⁽³⁾.

In Thailand, researchers have noted high violence rates among Thai youths. Hitting and punching in schools was reported as the most frequently witnessed violent act⁽⁴⁾. Interestingly, linkages between offline violence and online harassment were also found among Thai youth⁽⁵⁾. The 2013 survey on Thai youth health risk behavior found that 15.9% of respondents had been in a physical fight one or more times during the past 12 months. The prevalence of participating in physical fights was higher in males, adolescents and young adults, who live in Bangkok⁽⁶⁾. Recent research studies have identified the potential

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risk and protective factors that are related to violence among youths exist at multi-levels such as in the individual, peers, family, school, and community domains. Results from the National Longitudinal Study of Adolescent Health reported that the direct protective factors for youth violence were low emotional distress at age 14 years, and low peer delinquency between 18-20 years⁽⁷⁾. Herrenkohl et al found that the risk for violence increased among youths due to earlier antisocial behavior, attention problems, family conflict, low school commitment, and living in a neighborhood where young people were in trouble; while direct protective factors included a low level of attention problems, low risk-taking, refusal skills, school attachment, and low access and exposure to marijuana⁽⁸⁾. Sychareun et al have demonstrated that the interrelationship or cluster of health risk behaviors can be labeled as “risk behavior syndrome”. Findings from this study showed that when the youth engage in one risk behavior, they also tend to take other risks⁽⁹⁾. Sosin et al also found the co-occurrence between fighting and other health risk behaviors⁽¹⁰⁾. The prevalence of the other problem behaviors was much higher for students reporting a fight with injury as compared to the total population. Fighters were also more likely to report multiple problem behaviors than the non-fighters.

Youth violence is one of the major concerns among the Thai society and also for the national government. Violence among youth results in physical injury, emotional trauma, disability and death. Young perpetrators of violence may have their lives destroyed and wasted in the criminal justice system. In addition, there is a tremendous financial cost to a society associated with violence-related illness, disability, and premature death⁽¹¹⁾. The first step towards preventing youth violence is to identify the factors that increase or decrease the risk for violence. These results could lead to the design of appropriate prevention strategies that match the social context. At present, data about youth violence in Thailand is rather limited. Few studies examining youth violence have involved primary and secondary school settings, however, the studies to youth who are no longer attending school is likely to be limited. Thus, the aims of this study were to assess the prevalence of violent behaviors and to determine the risk factors of physical fight among the Thai youth.

Material and Method

Study design and participants

The Youth Risk Behavior Survey (YRBS) was

a population based, nationally representative, cross-sectional survey completed between January and March 2013 in Thailand. Respondents aged 13 to 24 years old were selected in the study using stratified multistage sampling. The primary strata consisted of Bangkok, central region, northern region, northeastern region and southern region. Two provinces were randomly selected from each of the four regions. Each province was secondarily stratified into urban and rural districts. Households were selected within each cluster using enumeration, followed by simple random sampling method. A respondent was randomly selected from each household using “Kish Grid” method⁽¹²⁾. Parents and respondents were asked to give their consent to participate in the survey. Respondents who agreed to participate were instructed to complete the self-administered questionnaire in a private area to ensure privacy from family member. Ethics approval was granted by Srinakharinwirot University, SWUEC/EX22/2555.

Questionnaire

The 2011 National YRBS is a self-administered questionnaire that has been developed and tested for reliability and validity by the Center for Disease Control and Prevention (CDC) in the United States⁽¹³⁾. The questionnaire was translated into Thai language and reviewed by developmental pediatricians and research team from Mahidol University in Bangkok, Thailand. Pilot testing was conducted to validate the questionnaire for accuracy and appropriateness. The final Thai version questionnaire contained 75 multiple-choice questions that measured 6 categories of priority health behaviors among youth, including unintentional injuries and violence, tobacco consumption, alcohol and marijuana consumption, sexual behavior, dietary behavior and physical activity. In the current research analysis, we only used the survey data about unintentional injuries and violence, alcohol consumption, and sexual behavior.

Definitions

The term “prevalence” in this study means the percentage of respondents with a reported history of violence related behavior during a specified time frame. There were three groups of variables identified and defined: violence-related behavior, violence on school property, and the risk factors. Violence-related behavior included a number of types of behavior: physical fighting, carrying a weapon, carrying a gun, injury in a physical fight, getting physically hurt by

boy/girlfriend, and being physically forced to have unwanted sexual intercourse. The three variables: physical fighting, injury in a physical fight, and physically hurt by boy/girlfriend, were determined only if the respondent had engaged in any of those in the past 12 months. Carrying a weapon and gun were determined if the respondent had carried a weapon and gun during the past 30 days. Moreover, “physically forced to have unwanted sexual intercourse” was determined if the respondent had ever been physically forced to have sexual intercourse when he/she did not want to. The scores were coded as 1 if these behaviors occurred, regardless of the degree of frequency of behaviors, and no occurrence of the behaviors was coded as 0.

Violence on school property was assessed only for the respondents who were students, and included five behaviors: physical fighting on school property, carrying a weapon on school property, not going to school because felt unsafe, being threatened or injured on school property, and being bullied on the school property. To “carry a weapon on school property” and “not go to school because felt unsafe” was indicated by the respondents as any days that they carried a weapon such as a gun, knife, or club on the school property and did not go to school because they felt it would be unsafe at school or on their way to or from school, during the past 30 days. The “physical fighting on school property”, “being threatened or injured on school property”, and “being bullied on school property” were determined only if the respondents had at any time engaged in these behaviors during the past 12 months. The same coding scheme as for the violence-related behavior was applied.

Risk factors were identified as the variables which potentially caused a physical fight; and these included 11 behaviors. Besides, “carrying a weapon”, “physically hurt by boy/girlfriend”, and “physically forced to have unwanted sexual intercourse”, which were already mentioned, other behaviors included - being cyber bullied, having early sexual intercourse, having multiple sexual partners, current alcohol consumption, drink driving, depression, poor academic perception, and playing team sport. Being cyber bullied was identified if the respondent has been ever been electronically bullied (include being bullied through e-mail, chat rooms, instant messaging, web sites, or texting) during the past 12 months. Early sexual intercourse meant that the respondent had a first sexual intercourse at 15 years old or younger. Having multiple sexual partners meant that the respondent had four or

more sexual partners during their lifetime. The current alcohol consumption indicated that the respondent drank at least a glass of alcohol during the past 30 days. The drink driving behavior was defined if at anytime the respondent had driven a car or another vehicle when he/she had been drinking alcohol, occurrence measured during the past 30 days. Depression meant if the respondent felt so sad or hopeless almost every day, for two weeks or more in a row, that he/she stopped doing some usual activities over the past 12 months. Poor academic perception was if the respondent had lower academic achievement as compared to other students in the class during the past 12 months. Finally, playing team sport was if the respondent played with any sport teams for games organized by his/her school or community groups during the past 12 months. The same coding scheme as for the violence-related behaviors was applied.

Statistical analysis

Descriptive statistics were generated to characterize the samples and to estimate the prevalence of violence-related behaviors. The risk for participating in a physical fight was estimated using odds ratio and chi-square analysis. Statistical analysis was performed using SPSS version 16.0.

Results

Demographic characteristics

A total of 920 respondents agreed to participate in this survey. Table 1 shows that the mean age of the respondents was 18.64 years; the highest proportion of respondents were in the middle adolescent age group (33.9%), in the student educational status (53.2%), from the northeast region (32.2%), and practiced the Buddhist religion (97.1%).

Violence-related behavior

Table 2 shows the prevalence of violence related behaviors by region, educational status, age group, and gender. According to region, Bangkok showed the highest prevalence of carrying a weapon (14.81%) carrying a gun (10.19%), and the southern region showed the highest prevalence of physical fighting (31.17%), injured in a physical fight (13.64%), and physically hurt by boy/girlfriend (9.74%). According to the education status and gender, the nonstudents, and the males showed a higher prevalence of all violence-related behavior. According to the age group, the middle adolescent group showed the highest reported behaviors for physical fighting

Table 1. Descriptive statistics of the demographic variables

Variables	Male (n = 512) n (%)	Female (n = 408) n (%)	Overall (n = 920) n (%)	p-value
Age group				
Early adolescence (13 to 14 years old)	31 (6.1)	42 (10.3)	73 (7.9)	0.081
Middle adolescence (15 to 17 years old)	170 (33.2)	142 (34.8)	312 (33.9)	
Late adolescence (18 to 21 years old)	178 (34.8)	131 (32.1)	309 (33.6)	
Early adulthood (22 to 24 years old)	133 (26.0)	93 (22.8)	226 (24.6)	
Mean age (SD)	18.83 (3.12)	18.40 (3.21)	18.64 (3.17)	
Current educational status				<0.001
Student	225 (43.9)	264 (64.7)	489 (53.2)	
Non student	287 (56.1)	144 (35.3)	431 (46.8)	
Region				<0.001
Bangkok	69 (13.5)	39 (9.6)	108 (11.7)	
North	89 (7.4)	70 (17.2)	159 (17.3)	
Northeast	137 (26.8)	159 (39.0)	296 (32.2)	
Central	110 (21.5)	93 (22.8)	203 (22.1)	
South	107 (20.9)	47 (11.5)	154 (16.7)	
Religion				0.839
Buddhism	497 (97.1)	396 (97.1)	893 (97.1)	
Islam	13 (2.5)	11 (2.7)	24 (2.6)	
Christianity	1 (0.2)	1 (0.2)	2 (0.2)	
Hinduism	1 (0.2)	0 (0.0)	1 (0.1)	

(23.40%), carrying weapons (10.58%), and having an injury in physical fight that had to be treated (10.26%). On the other hand, the late adolescent group showed the highest percentage who reported carrying a gun (5.83%), physically forced to have unwanted sexual intercourse (7.12%) and getting physically hurt by boy/girlfriend (2.91%).

Violence on school property

Data about violence on school property were procured from 489 respondents, who were studying in schools. Table 3 shows that among the various age groups, the early adolescence had the highest prevalence of physical fighting (20.55%), being threatened on school property (5.48%), being bullied (45.21%); and the middle adolescence had the highest prevalence of carrying a weapon (5.77%), not going to school because it felt unsafe (4.49%). Male students showed higher prevalence than female students in all violence on school property except for “being bullied”. According to the region wise analysis, the southern region showed the highest prevalence of all violence on school property.

Risk factors for physical fights

As shown in the Table 4 adolescents who

had been in a physical fight showed higher prevalence of all risk behaviors as compared to the nonphysical fight group. The adjusted ORs for gender were above 1, meaning that all risk variables were related to physical fight. However, poor academic perception and multiple sexual partners were non-significant relation to physical fight. When comparing the ORs, we found that the highest OR was carry a weapon (OR = 11.16, 95% CI = 6.54 to 19.04).

Discussion

During the last few decades, gang fighting among youth has escalated to be a serious problem in the Thai society. Compared to other Asian countries, the prevalence of youth fighting in Thailand was higher than in China, Myanmar and Indonesia but was lower than in Sri Lanka and the Philippines⁽¹⁴⁾. Compared with the European countries, the prevalence of fighting among Thai youth was lower than many countries including Sweden, Portugal, Ireland, and Israel, but the prevalence of carrying weapon was similar to that of these 4 countries⁽¹⁵⁾. In their comprehensive survey of 27 countries, Swahn et al found statistically significant gender differences among students reporting any fighting across many countries worldwide⁽¹⁴⁾. Boys were significantly more likely to report frequent physical

Table 2. Frequency and prevalence of violence-related behaviors by demographic variables

Violence-related behaviors	Age group			Gender		Education			Region				
	Early Adolescence (n = 73)	Middle Adolescence (n = 312)	Late Adolescence (n = 309)	Adult (n = 226)	Male (n = 512)	Female (n = 408)	Student (n = 489)	Non-student (n = 431)	Bangkok (n = 108)	North (n = 159)	Northeast (n = 296)	Central (n = 203)	South (n = 154)
In a physical fight	17 (23.29)	73 (23.40)	56 (18.12)	17 (7.52)	134 (26.17)	29 (7.11)	74 (15.13)	89 (20.65)	19 (17.59)	18 (11.32)	47 (15.88)	31 (15.27)	48 (31.17)
Carry a weapon	3 (4.11)	33 (10.58)	29 (9.39)	13 (5.75)	70 (13.67)	8 (1.96)	30 (6.13)	48 (11.14)	16 (14.81)	5 (3.14)	24 (8.11)	13 (6.40)	20 (12.99)
Carry a gun	1 (1.37)	15 (4.81)	18 (5.83)	8 (3.54)	40 (7.81)	2 (0.49)	11 (2.25)	31 (7.19)	11 (10.19)	3 (1.89)	12 (4.05)	7 (3.45)	9 (5.84)
Injured in a physical fight that had to be treated	4 (5.48)	32 (10.26)	27 (8.74)	7 (3.10)	61 (11.91)	9 (2.21)	29 (5.93)	41 (9.51)	10 (9.26)	4 (2.52)	19 (6.42)	16 (7.88)	21 (13.64)
Physically hurt by boy/girlfriend	1 (1.37)	17 (5.45)	22 (7.12)	17 (7.52)	44 (8.59)	13 (3.19)	18 (3.68)	39 (9.05)	7 (6.48)	6 (3.77)	22 (7.43)	7 (3.45)	15 (9.74)
Physically forced to have unwanted sexual intercourse	0 (0.00)	3 (0.96)	9 (2.91)	6 (2.65)	16 (3.13)	2 (0.49)	3 (0.61)	15 (3.48)	2 (1.85)	1 (0.63)	5 (1.69)	6 (2.96)	4 (2.60)

fighting than girls in 18 countries and 1 city, including Argentina, Botswana, Indonesia, Jordan, Kenya, Lebanon, Libya, Morocco, Myanmar, Namibia, Trinidad and Tobago, United Arab Emirates, USA, Uruguay, Sri-Lanka, Swaziland, Tanzania, Thailand, and Beijing⁽¹⁴⁾. Data from our study also shows that the violence-related behavior among Thai youth was higher among boys than girls in both on and off school property. The prevalence of participating in physical fights among Thai youth was highest during early and middle adolescence, and then declined in early adulthood. The other violence-related behavior such as “carrying a gun”, “physically hurt by boyfriend or girlfriend” and “physically forced to have unwanted sexual intercourse”, developed later in the late adolescence period. Most of the violence-related behavior declined dramatically when adolescents grew up to early adulthood. These findings imply that the intervention programs to prevent violence among Thai youth should focus more on boys, and should be designed to be implemented during childhood or early adolescent period before they are exposed to any forms of violence. Violence among Thai youth is not only limited to physical injury, but also extends to sexual violence. The prevalence of being sexually or physically abused by sexual partners was more common in the older age group than others form of violence.

It's also of great concern that 45% of early adolescent respondents in our study, reported being bullied on the school property. Previous researchers have identified a number of precursors to violence including exposure to various form of violence or aggression. For instance, Liang et al reported that the victims of bullying were found to exhibit significantly higher levels of violent and anti-social behaviors⁽¹⁶⁾. Our study also found that adolescents who were the victims of cyber bullying, physical abuse and sexual abuse had higher tendency to participate in physical fights. Tu et al studied the relationship between sexual behavior and nonsexual risk behavior among unmarried youth in Taipei (Taiwan), and Shanghai (China), and reported that youths having high risk of sexual behavior were more likely to have high risk of fighting⁽¹⁷⁾. This is consistent with our findings that show that the adolescents who had early sexual experience were more likely to participate in physical fighting. However, we found non-significant relationship between physical fight and multiple sexual partners.

Several studies have shown that adolescents who drink alcohol are more likely to participate in others risky health behavior, which lead to negative

Table 3. Frequency and prevalence of violence on school property by age group, gender, and region (only students)

Violence on school property	Age group					Gender					Region				
	Early Adolescence (n = 69)	Middle Adolescence (n = 244)	Late Adolescence (n = 139)	Adult (n = 37)	Male (n = 225)	Female (n = 264)	Bangkok (n = 58)	North (n = 94)	Northeast (n = 181)	Central (n = 76)	South (n = 80)				
1) Physical fighting on school property	15 (20.55)	51 (16.35)	20 (6.47)	2 (0.88)	68 (13.28)	20 (4.90)	10 (9.26)	17 (10.69)	21 (7.09)	14 (6.90)	26 (16.88)				
2) Carry a weapon on school property	2 (2.74)	18 (5.77)	5 (1.62)	3 (1.33)	24 (4.69)	4 (0.98)	4 (3.70)	1 (0.63)	10 (3.38)	3 (1.48)	10 (6.49)				
3) Did not go to school because it felt unsafe	3 (4.11)	14 (4.49)	9 (2.91)	3 (1.33)	21 (4.10)	8 (1.96)	3 (2.78)	2 (1.26)	11 (3.72)	4 (1.97)	9 (5.84)				
4) Being threatened or injured on school property	4 (5.48)	15 (4.81)	5 (1.62)	4 (1.77)	23 (4.49)	5 (1.23)	2 (1.85)	1 (0.63)	12 (4.05)	4 (1.97)	9 (5.84)				
5) Being bullied on school property	33 (45.21)	80 (25.64)	27 (8.74)	3 (1.33)	77 (15.04)	66 (16.18)	11 (10.19)	27 (16.98)	53 (17.91)	22 (10.84)	30 (19.48)				

Table 4. Odds ratio of physical fight with risk behaviors

Risk Behaviors	Non-physical fight (%)	Physical fight (%)	Crude OR	95%CI	Adjusted ORs	95%CI
1) Carry a weapon	3.17	33.13	15.13	8.98-25.48	11.16	6.54-19.04
2) Being cyber bullied	7.13	20.25	3.31	2.06-5.30	3.45	2.09-5.68
3) Physically hurt by boy/girlfriend	7.49	22.81	3.65	2.06-6.46	2.92	1.61-5.28
4) Physically forced to have unwanted sexual intercourse	1.19	5.52	4.85	1.90-12.44	3.42	1.31-8.97
5) Drink driving	21.14	49.08	3.60	2.53-5.12	2.56	1.77-3.71
6) Early sexual intercourse	22.60	69.88	7.94	4.62-13.68	6.21	3.54-10.90
7) Multiple sexual partner	32.88	55.42	2.54	1.54-4.17	1.64	0.97-2.80
8) Current alcohol drinking	54.65	77.89	2.92	1.72-4.96	2.54	1.47-4.36
9) Depression	9.11	16.56	1.98	1.22-3.20	2.19	1.32-3.63
10) Poor academic perception	7.44	12.39	1.73	0.92-3.27	1.30	0.68-2.49
11) Play team sport	46.37	63.80	2.04	1.44-2.89	1.67	1.16-2.40

consequences. Assanangkornchai et al indicated that students who drank alcohol were more likely to engage in violence-related behavior including carrying a weapon, getting into a physical fight, either with or without serious injury, being assaulted by their boyfriend or girlfriend, and being forced to have sexual intercourse in the past 12 months⁽¹⁸⁾. Ellickson et al reported that early alcohol use by adolescents is associated with violent behavior in young adulthood⁽¹⁹⁾. In our study, we also found that the respondents who drank alcohol during the past 30 days, or drove a car after drinking alcohol, were at a higher risk to participate in physical fighting. Bannink et al found the association between depressive symptoms and the cluster of problem behaviors consisting of risk behavior such as delinquency, truancy and incurring debts⁽²⁰⁾.

Previous researchers have identified the effect of academic achievement on violent behaviors among youths^(7,8,21,22). However, we did not find poor academic perception as a statistically significant risk factor for participating in physical fight in this study. This might be because only 53% of the respondents were students and the non-student group might not be concerned about their previous academic achievements. Results from our study found that the youth who played team sports could be identified in the high risk group who also participated in physical fighting. The reason that could explain this finding is that the influence of peer groups could lead the adolescents to be involved in good activities, such as sports, as well as bad activities, such as gang violence, at the same time. A positive

peer group is a strong protective factor for youth violence and should be considered as an important part of anticipatory guidance to prevent youth violence. Integrating adolescents into activities with no disturbed peers is a part of the secondary youth violence prevention intervention⁽¹¹⁾.

The present study had several limitations that should be noted. Firstly, this survey relied on youth self-reported data. Adolescents may be reluctant to disclose their health risk behavior fully. In this survey, we tried to minimize under-reporting by stressing the confidentiality of the data and by finding a private place for respondents to fill the questionnaire. Secondly, this study was a cross-sectional study, youth risk behaviors change rapidly over time. A longitudinal study should be done to closely monitor youth risk behavior and its consequences.

In conclusion, this research found some valuable insights about a critical problem related to the youth. The prevalence of youth violence-related behavior was found to have higher occurrence in early and middle adolescence, among males, in non-students and among groups from Southern Thailand. The chances of participating in physical fights increases significantly when the youth showed other violence related behaviors. Hence, prevention programs should focus more on high risk groups and high risk types of behavior.

What is already known on this topic?

The potential risk and protective factors that are related to violence among youth in

Western countries.

What this study adds?

The prevalence of violence-related behavior and the risk factors of physical fighting among Thai youth in both students and non-students.

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Potential conflict of interests

None.

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พฤติกรรมรุนแรงและปัจจัยเสี่ยงต่อพฤติกรรมก้าวร้าวในวัยรุ่นไทย

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ภูมิหลัง: พฤติกรรมรุนแรงในวัยรุ่นเป็นปัญหาทางสาธารณสุขที่สำคัญระดับชาติและนานาชาติ วัยรุ่นที่ก่อความรุนแรงอาจนำไปสู่การถูกคุมขังในเรือนจำ ทำให้เสียโอกาสในการดำเนินชีวิตที่ดีในอนาคต

วัตถุประสงค์: เพื่อศึกษาอุบัติการณ์ของพฤติกรรมรุนแรงและวิเคราะห์หาปัจจัยเสี่ยงต่อพฤติกรรมก้าวร้าวในวัยรุ่นไทย

วัสดุและวิธีการ: การศึกษาครั้งนี้เป็นการสำรวจภาคตัดขวาง (cross sectional study) ในปี พ.ศ. 2556 โดยเก็บรวบรวมข้อมูลจากการสุ่มตัวอย่างวัยรุ่นจำนวน 920 คน อายุระหว่าง 13 ถึง 24 ปี จากทั่วประเทศ กลุ่มตัวอย่างจะตอบแบบสอบถาม Youth Risk Behavior Surveillance System (YRBS) ฉบับภาษาไทย การวิเคราะห์ครั้งนี้ใช้ข้อมูลจาก 3 หมวดได้แก่ หมวดอุบัติเหตุและความรุนแรง หมวดการบริโภคเครื่องดื่มผสมแอลกอฮอล์ และหมวดพฤติกรรมทางค่านิยม โดยใช้สถิติ ค่าความถี่ ร้อยละ และ odds ratio

ผลการศึกษา: อุบัติการณ์ของพฤติกรรมรุนแรงพบสูงสุดในกลุ่มวัยรุ่นตอนกลางและตอนปลาย ขณะที่พฤติกรรมรุนแรงในสถานศึกษาพบสูงสุดในกลุ่มวัยรุ่นตอนต้นและตอนกลาง พฤติกรรมรุนแรงพบบ่อยในเพศชาย วัยรุ่นที่ไม่ได้เป็นนักเรียนและวัยรุ่นที่อาศัยอยู่ในภาคใต้ วัยรุ่นที่พกอาวุธ มีความเสี่ยงสูงที่สุดที่จะมีพฤติกรรมก้าวร้าว ($OR = 11.16, 95\% CI = 6.54$ ถึง 19.04)

สรุป: อุบัติการณ์ของพฤติกรรมรุนแรงพบบ่อยในวัยรุ่นเพศชาย วัยรุ่นที่ไม่ได้เป็นนักเรียน และวัยรุ่นที่อาศัยอยู่ในภาคใต้ วัยรุ่นที่มีพฤติกรรมรุนแรงอื่น ๆ มีความเสี่ยงสูงที่จะมีพฤติกรรมก้าวร้าว ทำร้ายร่างกาย แนวทางการป้องกันความรุนแรงในวัยรุ่นควรมุ่งเป้าหมายไปยังวัยรุ่นกลุ่มเสี่ยงและวัยรุ่นที่เคยมีพฤติกรรมรุนแรงด้านต่าง ๆ