

Violence Related Behaviours among Adolescent Students and Factors Affecting Thereto

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Abstract

Background: Violence among young people is an important public health problem in society. Act of violence seen in schools is disturbing students' learning processes and inhibiting their developments generally results in emotional abuse, physical injury and death.

Objectives: This study is conducted in order to find out the prevalence of and exposure to violence, which is an important public health problem, in schools and to determine the factors affecting thereto. Specific factors investigated were exposure to violence, gender, age, type of school, economic status of families and level of education of mothers.

Method: This cross-sectional study was performed between March 2012 and May 2012. The population is 1575 students from 9th grade and the study is completed with 1405 students accepting to participate therein. A study questionnaire form established based on the "Youth Risk Behaviour Survey (YRBS)" prepared by CDC (Center for Disease Control and Prevention) is used as data collecting tool.

Results: The ratios of each violence-related behaviour are 35.8% and 14.1%, respectively for boys whereas 20.4% and 6.4% for girls. These behaviours are statistically more common among boys than girls ($p < 0.05$). It was found out that there is a significant relationship between the students' family income level and getting involved in a physical fight in school ($p < 0.05$). Though no significant relationship is detected between mother's educational level and getting involved in a physical fight and carrying weapons, ratios of gang membership is 6.2% for students whose a mother is illiterate and is 14.3% for student whose mother's educational level is high school and above ($p < 0.05$).

Conclusions: It is observed that each violence-related behaviour is more common among boys and with the increase in the mother's education, tendency of being a member of a gang and getting involved in a physical fight accordingly increases.

Keywords: Violence among adolescents; Prevalence of violence; Violence-related behavior; Violence in school; Factors affecting the violence

Introduction

Violence among young people is an important public health problem in society. Violence-related behaviours of the young and gangs in schools or streets are shown in the media almost every day. Act of violence seen in schools is disturbing students' learning processes and inhibiting their developments generally results in emotional abuse, physical injury and death [1]. Furthermore, it is one of the increasing and disseminating reasons of death in early age all over the world [2].

It is known that acts of violence in schools have a tendency of increasing in developed countries especially in United States of America for a long time [3]. Some studies conducted in Turkey show that violence has started to become a serious problem for the young and intramural violence has been turning into a social issue [4].

According to a study executed in İstanbul, the ratio of the students being subjected to violence is 23.4% for boys and 10.1% for girls [5]. In a study conducted in Ankara on adolescents with ages ranging between 12 and 21, it is found out that 34% of the students account for those who are exposed to violence in school [6].

According to Commission Report of The Grand National Assembly of Turkey (2007), of the students taking education in secondary school within the last three months in 2006-2007 academic year, 22% are subjected to physical, 53% are subjected to verbal, 26.3% are subjected

to emotional and 15.8% are subjected to sexual violence; and 35.5% used physical, 48.7% used verbal, 27.6% used emotional and 11.7% used sexual violence [7].

According to an instance representing 9th-12th grade high school students in surveillance study performed in America by Centers for Disease Control And Prevention, the ratio of students being subjected to bullying in school within last the 1 year is 19.6%, the ratio of students getting involved in a physical fight in school within the last 1 year is 24.7% and the ratio of students not going to school one or more days within 30 days due to feeling unsafe is 7.1% [8]. In a study executed also in America by The National Center for Education Statistics (NCES), 1,246,000 is the number of adolescents being exposed to non-fatal violence between ages 12 and 18 in 2011. The ratio of adolescents getting involved in a fight at least once within the last 1 year is detected as 33%. 10% of the male students and 5% of the female students are

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threatened or attacked with a weapon (knife, gun etc.) in school [9]. All of these data show how common and important a public health problem violence is among young people. We assume that violence has started to become a serious problem for the students in high schools and intramural violence has been turning into a social issue. This study is conducted in order to determine the prevalence of violence among adolescent and factors affecting the violence, and make a contribution thereto.

Materials and Methods

Subjects

This cross-sectional study was performed between March 2012 and May 2012. All 9th grade students from 24 high schools in district of Beyoglu in Istanbul city, in 2011-2012 academic year are included herein. 1575 students are randomly chosen by using 50% randomise sampling from a total of 3150 9th grade students in Beyoğlu and the study is completed with 1405 students having accepted to participate therein. Required permissions are obtained from İstanbul Provincial Directorate for National Education. The research is conducted with a cross-sectional study design and the data are obtained by face-to-face meeting method.

Youth risk behaviour survey

A questionnaire form prepared based on the questiones used in “Youth Risk Behaviour Survey” (YRBS) performed by CDC (Center for Disease Control and Prevention) is used as a data collecting tool. This was not an inventory but, a questionnaire developed to be used in descriptive studies. In our study, it was used questions interrogating violence related behaviors among the entire of the questionnaire. It has been conducted two test-retest reliability studies of the YRBS questionnaire, one in 1992 and one in 2000. In the first study, the questionnaire was administered to a convenience sample of 1,679 students in grades 7–12. The questionnaire was administered on two occasions, 14 days apart . Approximately three fourths of the questions were rated as having a substantial or higher reliability ($\kappa=61\%–100\%$), and no statistically significant differences were observed between the prevalence estimates for the first and second times that the questionnaire was administered. In the second study, the 1999 questionnaire was administered to a convenience sample of 4,619 high school students. The questionnaire was administered on two occasions, approximately 2 weeks apart. The responses of students in grade 7 were less consistent than those of students in grades 9–12, indicating that the questionnaire is best suited for students in those grades [10,11].

Questionnaire

The questionnaire form consists of three sections: first section includes sociodemographic information of students, second section includes questions relating violence-related behaviours and third section includes questions about violence prevention education. Getting involved in a physical fight, carrying a weapon such as gun, knife and bat or gang membership are considered as violence-related behaviours.

Statistical analysis

SPSS 16.0 is used to evaluate data. Exposure to violence was accepted as dependent variable and gender, age, type of school, economic status of families and level of education of the mothers were independent variables. It was observed in the analysis of the data that

they were in normal distribution. Chi-square and correlation are used to analyse variables relating to frequency, arytmetic average and violence-related behaviours during data-analysis process. Variables which are $p < 0.05$ are considered as statistically significant.

Results

Of the 1405 students participated herein 48.3% were boys and 51.7% were girls with an average age of 15.46 ± 0.68 years. Most of the students (81%) were from public high schools (1254) and remaining 19% were from private high schools (295) (Table 1).

Of the students participated herein 7.5% stated that they were beaten or threatened within last 30 days, 10.7% stated that they did not go to school for one or more days due to feeling unsafe, 15.3% stated that they carried weapon such as gun, knife or bat (Table 2).

During the recent 12 months, 27.4% of the students account for those who have involved in a physical fight, 11% for those who have injuries requiring medical intervention, 10.2% for those who are a gang member and 8.3% for those who are forced to have a sexual intercourse (Table 2).

The ratios of each violence-related behaviour (getting involved in a physical fight, gang membership) are 35.8% and 14.1%, respectively for boys whereas 20.4% and 6.4% for girls. These behaviours are statistically more common among boys than girls ($p < 0.05$) (Table 3).

Carrying weapons such as gun, knife and bat is 21.8% for boys and 8.4% for girls ($p < 0.05$) (Table 4).

		N	% (valid)
Sex	Girl	656	51.7
	Boy	614	48.3
Age	15>	35	2.5
	15-16	1280	92.2
	16<	88	6.3
Type of School	Public	534	38.0
	Private	25	1.8
	Vocational	568	40.4
	Minority	278	19.8
Family Level of Income	Low	154	11.6
	Middle	1026	77.5
	High	144	10.9
Mother's Educational Level	Illiterate	112	8.2
	Primary	808	59.1
	High School and above	447	32.7
Mother's Job Status	Housewife	974	76.2
	Working	304	23.8
Total		1405	

Table 1: Demographic Distribution of Students

		(% <i>n</i>)
Violence-Related Behaviours	Getting involved in physical fight	27.4/385
	Carrying weapon such as knife, gun etc.	15.3/ 215
	Gang Membership	10.2/ 142
Exposure to Violence	Being beaten or threatened	7.5/ 106
	Theft of belongings in school	20.8/ 292
	Serious injury requiring intervention	11.0/ 154
	Absence due to feeling unsafety	10.7/ 150
	Forceful sexual intercourse	8.3/116

Table 2: Violence-Related Behaviours and Distribution of Exposure to Violence Among Students

		Carrying Weapon	Carrying Weapon in School	Absence due to Unsafety	Being Threatened, Beaten	Theft of and Damage to Belongings	Gang Membership
Sex	Boy	21.8/ 134	12.9/ 79	13/ 80	9.9/ 61	22/ 135	14.1/ 85
	Girl	8.4/ 55	5.8/ 38	8.1/ 53	4.7/ 31	19.4/ 127	6.4/ 42
	P	<0.001	<0.001	<0.05	<0.001	>0.05	<0.001
Type of School	Public High School	15.3/ 169	9.2/ 101	11.1/ 122	6.9/ 76	19.1/ 211	9.3/ 101
	Private High School.	15/40	10.9/ 29	9.4/ 25	10.5/ 28	27.8/ 74	14.5/ 38
	P	<0.05	>0.05	>0.05	<0.05	<0.05	<0.05
Level of Income	Low	18.2/ 28	11/ 17	13.6/ 21	12.3/ 19	22.7/ 35	13.9/ 21
	Middle	14.4/ 148	9.1/ 93	11/ 113	6.6/ 68	20.2/ 207	8.5/ 86
	High	21.5/ 31	11.8/ 17	6.2/ 9	10.4/ 15	22.2/ 32	16.9/ 24
	P	>0.05	>0.05	>0.05	<0.05	>0.05	<0.05
Mother's Educational Level	Illiterate	13.4/ 15	8.9/ 10	10.7/ 12	3.6/ 4	17.9/ 20	6.2/ 7
	Primary School	13.9/ 112	7.9/ 64	10.3/ 83	6.4/ 52	17.8/ 144	8/ 64
	High School and Above	18.3/ 82	12.3/ 55	11.4/ 51	10.3/ 46	26.4/ 118	14.3/ 63
	P	>0.05	<0.05	>0.05	<0.05	<0.001	<0.001
Total		15.3/ 215	9.5/ 134	10.7/ 150	7.5/ 106	20.8/ 292	10.2/ 142

Chi-square test was used

Table 3: Distribution of Some Variables According to Violence-Related Behaviours of Students within the Last 30 Days (%/n)

		Violence of Girl/ Boyfriend	Violence of a family member	Violence of teacher	Getting involved in a physical fight in school	Having injuries requiring medical intervention due to a fight	Being forced to have sexual intercourse
Sex	Boy	14.2/ 84	16.8/ 103	17.6/ 108	35.8/ 220	14.2/ 87	12/ 70
	Girl	12.2/ 79	16/ 105	7.2/ 47	20.4/ 134	7.6/ 50	4.9/ 31
	P	>0.05	>0.05	<0.001	<0.001	<0.001	<0.001
Type of School	Public High School	16.4/ 181	17.1/ 188	13.2/ 145	28.6/ 315	10.6/ 117	8.7/ 92
	Private High School	13.9/ 37	15/ 40	9.4/ 25	24.4/ 65	12.8/ 34	6.7/ 17
	P	>0.05	>0.05	>0.05	>0.05	>0.05	>0.05
Level of Income	Low	16.1/ 24	23.4/ 36	16.9/ 26	33.8/ 52	14.3/ 22	13.8/ 20
	Middle	12.6/ 127	16.1/ 165	11.5/ 118	25.8/ 265	10.1/ 104	6.9/ 68
	High	14.3/ 20	11.8/ 17	12.5/ 18	34/ 49	13.2/ 19	12/ 17
	P	>0.05	<0.05	>0.05	<0.05	>0.05	<0.05
Mother's Education Level	Illiterate	8/ 9	19.6/ 22	8/ 9	27.7/ 31	8.9/ 10	7.3/ 8
	Primary	13.2/ 104	17.1/ 138	11.9/ 96	27.6/ 223	9.4/ 76	8.1/ 63
	High School or Above	14.4/ 63	14.1/ 63	13.2/ 59	26.6/ 119	13.9/ 62	8.4/ 36
	P	<0.05	>0.05	>0.05	>0.05	<0.05	>0.05
Type of School	Public High School	13.7/ 69	15.9/ 85	12/ 64	27.9/ 149	11.4/ 61	10/ 52
	Private High School	23.8/ 5	36/ 9	24/ 6	44/ 11	32/ 8	13/ 3
	Vocational High School	13.5/ 75	18.1/ 103	14.3/ 81	29.2/ 166	9.9/ 56	7.4/ 40
	Minority High School	12/ 33	11.5/ 32	7.2/ 20	21.2/ 59	10.4/ 29	6.3/ 17
	P	>0.05	<0.05	<0.05	<0.05	<0.05	>0.05

Chi-square test was used

Table 4: Distribution of Some Variables According to Exposure to Violence During Recent One Year and Violence-Related Behaviours of Students (%/n)

It is found out that there is no significant relationship between the students' family income level and carrying a weapon ($p>0.05$). It is found out that there is a significant relationship between the students' family income level and getting involved in a physical fight in school ($p<0.05$). The ratio of students stating that they are a gang member is higher among students from low (13.9%) and high (16.9%) income families than from middle (8.5%) income families ($p<0.05$) (Table 3).

Though no significant relationship is detected between mother's educational level and getting involved in a physical fight and carrying weapons, ratios of gang membership is 6.2% for students whose a mother is illiterate and is 14.3% for student whose mother's educational level is high school and above ($p<0.05$) (Tables 3 and 4).

Despite no significant difference in the ratios of getting involved in a physical fight and carrying weapons ($p>0.05$) is observed between

students from public and private schools, 9.3% of the students in public high schools and 14.5% of the students in private high schools have stated being a gang member ($p<0.05$). 23.4% of the students account for those from low income families and 11.8% for those from high income families have stated that they have been subjected to violence of a family member ($p<0.05$) (Tables 3 and 4).

Of the students participated herein 31.2% have stated getting education against physical fights, 20.7% have stated getting education against bullying and 13.1% have stated education against sexual assaults. The ratio of students in public high schools having stated getting education for prevention of physical fight is significantly higher than the ratio of students in private high schools ($p<0.05$) (Table 5).

Discussion

Of the students 27.4% participated herein have declared getting

Type of School	Against bullying			Against physical fight			Against sexual assaults		
	Yes	No	No answer	Yes	No	No answer	Yes	No	No answer
Public High School	20.1	66.3	13.5	30.6	57.4	12	13.8	75.8	10.5
Private HighSchool	16.6	74	9.4	27.6	63.7	8.7	8	82.5	9.4
Total	19.1	68.5	12.4	29.7	59.2	11.1	12.1	77.7	10.2
P	<0.05			<0.05			<0.05		

Chi-square test was used

Table 5: Violence Prevention Education Among Students (%)

involved in a physical fight during recent 1 year. This ratio change between 24.5% and 50% and is higher in big cities according to similar studies conducted in Turkey [12-18]. According to a study performed in America in 2013, the ratio of getting involved in physical fights among adolescent students is found out to be 24.7% [8]. These results are concordant with the results of studies in literature conducted with adolescent students.

In our study, we have seen that getting involved in physical fights is higher among male students and this conforms to literature [13,15,18,19].

Getting involved in physical fights is found out to be more common in public high schools according to some studies [20], and to be more common in private high schools according to other studies [15]. However, according to some other studies like ours, no correlation is shown [17,19].

Some previous studies show that levels of family income and mother's education have no effect thereto [12,15,21,22]. We have also detected no significant relationship in our study ($p>0.05$).

Of the students 15.3% participated herein have stated carrying weapons such as gun, knife or bat during recent 1 month. The ratio of students carrying weapons with them changes between 2.8% and 17.2% according to studies conducted in Turkey [12,15,18,19]. In 2013, the ratio thereof is found to be 17.9% in America where obtaining a weapon is much easier [8]. It is worrying to see that the result we have obtained is close to the upper ratio of carrying weapons in our country and to the ratio of America where obtaining a weapon is much easier.

It is observed that the ratio of carrying weapons is higher among boys than girls ($p<0.05$) which is confirmed by similar studies [12,13,15,18,19,21]. No difference among types of school relating thereto is detected ($p>0.05$). In some similar studies, it is stated that type of school has no effect thereon [15,17] whereas in some of them, it is stated that carrying weapons is more common in public schools [12].

No relationship is detected between carrying weapons and levels of family income and mother's education ($p>0.05$), which conforms to some studies in literature [12,21,22].

Of the students 10.1% participated herein have stated being a gang member. In some studies conducted with adolescents, it is determined that 4.7-15% of the students are gang members [13,18].

In our study, we have seen that being a gang member is more common among students from low and high income families than from middle income families ($p<0.01$). It is determined that the ratio of being a gang member is higher among students from private high schools than public high schools ($p<0.05$). A same result is obtained in another study [18]. Moreover, a linear correlation between increase in mother's educational level and being a gang member is detected ($p<0.01$). In a similar study, no correlation is observed [18].

Of the students 7.5% participated herein have stated that they

have been beaten or threatened during last 30 days. In literature, it is expressed that 3-8% of the adolescent students have been beaten or threatened within last 30 days [8,12,15,19,20]. It is determined that the ratio of exposure is higher among boys and among students in private school, whose mothers' educational level is high, from low or high income level. In some studies, it is also shown to be more common among male students [12,15,17,19]. However, in some other studies, it is shown to be more common in public high schools and in some of them, no correlation is stated [12,15]. There are some studies showing no correlation with family income level [15,19].

Of the students 11% have stated having injuries requiring medical intervention. This ratio is 7-15.4% in studies conducted with adolescents in Turkey, whereas it is 3.1% according to a study performed in America [8,12,13,20]. In our study, male students and students with a higher maternal educational level have reported to a higher rate of injuries requiring medical intervention ($p<0.05$). However, no significant relationship is observed in terms of type of school and family income level ($p>0.05$). In some previous studies, it is shown to be higher among boys [8,12,19]. In some studies, it is emphasized that it has no correlation with type of school, levels of family income and maternal education [12,19].

Of the students 16.4% participated herein have stated being subjected to family members' violence. Though domestic violence is higher among low income families ($p<0.05$), no difference in terms of student's sex, maternal educational level and school type has been detected ($p>0.05$).

Of the students 10.7% participated herein have stated not going to school for one or more days during last 30 days due to feeling unsafe. In previous studies, this ratio changes between 8.3% and 18.9% in Turkey [15,18]. This was determined 7.1% in America [8]. Like other studies performed in Turkey, it is shown to be higher among boys and no correlation with family income, type of school and maternal educational level is detected ($p>0.05$) [18]. However, not going to school due to feeling unsafety is more common among girls in America [8].

Of the students 8.3% participated herein have stated being forced to have sexual intercourse. In studies conducted with adolescent students, 4.1-9.7% of the students have emphasised being forced to have sexual intercourse [12,15,17,19]. It is higher among male students and students from low or high income families ($p<0.05$). In some of the previous studies, it is shown to be higher among female students whereas it is higher among male students according to some other studies [17,19]. In some studies, no correlation with family income and school type is shown [19].

Of the students 31.2% account for those who have stated being trained for prevention of physical fights, 20.7% for those who have stated being trained for prevention of bullying and 13.1% for those who have stated being trained for prevention of sexual assaults.

The ratio of these trainings are higher in public high schools than

private high schools. However, no significant effect thereof on getting involved in physical fight, exposure to violence and carrying weapon or bat is detected ($p>0.05$).

Despite several important findings in the present study, performing it only within one district of the Istanbul city is considered as a limitation of it.

In conclusion, violence behavior among high school students constitutes an important issue. We thought that awareness about this problem has importance to psychiatrists and to other specialists having researches in this field. Psychiatrists and education staff should give preventive training courses about avoiding violence in high schools.

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