Contributing Factors to Aggressive Behaviors in High School Students in Turkey

Fadime Kaya, RN, Msc¹, Hulya Bilgin, RN, Msc, PhD¹, and Mark I. Singer, PhD²

Abstract
Violence among young people is an important public health topic as a universal problem. One of the recent issues concerning both the media and parents is the aggressive behavior among the high school students in Istanbul and the worldwide. The aim of this study was to investigate the types and rates of aggressive behavior and the contributing factors to this behavior among high school students. Sample was composed of 805 students of 14–18 ages attending five high schools in Istanbul. The most common aggressive behavior among the students was found to be “beating others,” 34.5% (n = 278). Past experiences of violence of high school students (direct exposure to violence/witnessing violence/exposure to/witnessing attack with knife/gun) were determined as the most contributing factor to aggressive behavior. The present study investigated the nature of violent behaviors and associations between violent behaviors and contributing factors among high school students from Turkey.

Keywords
aggression, high school student, violence experiences

Introduction
Biological, psychological, social, and cultural factors are the determinants of behaviors. Adolescence is a period that includes many emotional and behavioral changes. Some of these changes are problematic (Savrun, 2000). One of the recent issues concerning both the media and parents is the aggressive behavior among the high school students. The increase in aggressive behavior at school has drawn attention to this subject among researchers (Efilti, 2008).

In a large-scale study (World Health Organization [WHO], 2002), the frequency of physical fighting over a 1-year period among male students at high school was 22% in Sweden, 44% in the United States and 76% in Israel. Males are at higher risk not only in violence incidents resulting in death but also in violence incidents not resulting in death. One of the most significant differences between fatal and nonfatal incidents is that fatal incidents often involve guns, while fists, kicks, and drilling and cutting tools are used more in nonfatal incidents (WHO, 2002). Violence incidents not resulting in death significantly increase during middle-adolescence (ages 14–16) and early adulthood (ages 18–25). In a survey conducted in South Africa (WHO, 2002), only 3.5% of the violence victims were under 13 years of age, while 21.9% of them were between 14 and 21 years, and 52.3% were between 22 and 35 years. Early adolescents are much more exposed to nonfatal violence than the late adolescents (WHO, 2002).

According to the data from Turkish Ministry of National Education concerning 2006–2007, a total of 8,856 (28.5%) high school students were involved in 4,379 violence incidents in 7,934 schools. The most frequent types of violence were physical harm (34.5%), bullying/threatening/interference (23.7%), and gossiping/nicknaming (10.1%). A total of 15 violence incidents resulting in death occurred at schools within a 1-year period (Turkish Grand National Assembly (TGNA) Commission for Investigating Increasing Violence Tendencies in Children and Youth, 2008). In another study (Eke & Ogel, 2006), the rate of getting involved in at least one physical fight was 68.8% among boys and 29.7% among girls.

Several studies indicate that the reasons for aggressive behavior during this period are multifactorial such as being victim of violence, television viewing, gender, computer use, music preferences, environmental, and socioeconomic variables (Alikasifoglu et al., 2004; Arpaci & Ersoy, 2003; Horman, Hansen, Cochain, & Lindsey, 2005; Johnson,

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Cohen, Smailes, Kasen, & Brook, 2002; Ozmen, 2006; Palabiyikoglu, 1997; Savage, 2004; Singer et al., 1999; Vahip, 2002; Valk, Spruijt, Goede, Maas, & Meus, 2005). In addition, mental, emotional, social, and psychosexual development patterns, learning styles and role models, attributes and expectations of an individual from childhood are noted between other factors that are influential on the tendency and type of aggressive behavior. (Beijsterveldt, 2003; Claes et al., 2005; Cuceloglu, 1997; Efilti, 2008; Hoffmann 2006; Keskin et al., 2000).

As the reflection of globalization related to political and socioeconomic changes as well as individualization and moral transitions, in Turkey, especially starting with 1994–1995, there has been concern in the public with regard to the problems faced by secondary school students relating to violence and aggression, particularly in large city Istanbul. However, the scientific studies suggesting concrete and significant data to determine the reasons for such incidents have been insufficient in Turkey. The resolution made by the Turkish Grand National Assembly Violence Investigation Commission in 2007 to investigate the violence among the children and youth was one of the most significant and new steps taken toward the issue (TGNA Commission for Investigating Increasing Violence Tendencies Among the Children and Youth, 2008).

The individual, family, and society have significant roles in healthy development and successful violence prevention programs during the adolescence, which constitutes a high-risk period. Determining the levels of violent behaviors and the salient contributing factors to these behaviors is a primary step to minimize violence, which is a universal problem and risk in Turkey with a population of under-15-year-olds constituting 27.4% of its total population (Turkish Population and Health Research, 2008).

The aims of this study were to investigate the types and rates of aggressive behavior and the contributing factors to this behavior among the high school students.

The following research questions were addressed:

- What are the kind and rate of aggressive behaviors among the high school students?
- What are the contributing factors to aggressive behaviors among the high school students?

**Method**

**Participants**

This descriptive and cross-sectional study was based on a self-report questionnaire. The study population consisted of 930 students attending four regular high schools and one industrial vocational high school in a densely populated district of Istanbul and who voluntarily participated in the study. All schools are affiliated with the Ministry of National Education. With regard to students’ preferences, they can choose the schools that give an education for 3 years. In vocational high school, students are educated into different professional areas unlike regular high schools. About 125 questionnaires were excluded due to reasons such as errors in filling the forms, and so on, and a total of 805 students were included in the study and comprised the final sample.

**Measures**

**Information Form**

The Information Form, including the individual, and family characteristics of the participants as well as their TV watching, computer/Internet use habits was developed by the investigator on the basis of literature review. Individual characteristics were determined by asking questions such as gender, age, birthplace, smoking and alcohol use, hobbies, grade level, success level, and the status of disciplinary penalty. To measure family characteristics, participants were asked some questions related to family type and structure, education levels of parents, economic status, communication style used in family and people whom they lived. In the context of TV watching and computer/Internet use, average TV/computer use periods, favorite TV programs/computer activity and the effects of TV watching, and the use of computer on violent behaviors were identified.

**The Assessment of Aggressive Behavior and Violence Experiences**

Two main scales were used to assess participants’ aggressive behavior and violence experiences. The former was “Violent Behaviors Scale.” The latter was one with multiple scales named “Exposure to Violence Scales.”

**Violent Behaviors Scale (VBS)**

VBS developed by Song, Singer, and Anglin (1998) assesses six distinct violence types occurring during the past year: threatening others with physical harm; slapping or punching someone before the other person hit them; slapping or punching someone after the other person hit them; beating up someone; attacking someone with a knife; and shooting at or shooting someone with a real gun. The scale is comprised of 6 items and uses a 4-point Likert-type scale ranging from Never (0) to Almost Every Day (3) was used to assess the frequency of each type of violence.

The scoring is carried out on the basis of the total points in the scale; the higher the score, the higher the level of aggressive behavior. In the previous study (Song, Singer, & Anglin, 1998), the subdimension and reliability coefficient for VBS was \( \alpha = .79 \). The coefficient alpha was found to be .86 in this study (Table 1).

**Exposure to Violence Scales**

The Exposure to Violence Scales is a self-report scale to evaluate different kind and the rate of violence in the period
of childhood and adolescence (at the age of 9–18; Singer, Anglin, Song, Lunghofer, 1995; Singer et al. 1999). It includes two subscales as recent and past exposure to violence with 4-point Likert-type scale. The Exposure to Violence Scales contain a total of 38 items.

**Recent Exposure to Violence Scale (REVS)**

REVS developed by Singer et al. (1999) assesses six distinct types of violence directly experienced or witnessed over the past year: threats, slapping/hitting/punching, beatings, knife attacks, and shootings, and sexual abuse. The scale is comprised of 26 items and uses a 4-point Likert-type scale ranging from Never (0) to Almost Every Day (3).

In the scale, three types of violence (threats, slapping/hitting/punching, and beating) include questions categorized according to the environment the violent incident happened (home, school, neighborhood). The scale is assessed on the basis of addition of the total points and the subgroup points, with higher scores indicating more intensive exposure to violence as a witness or victim. The subdimensions and reliability coefficients determined for PEVS in original study (Singer et al., 1999) were witnessing violence in the past (α = .79), victim of violence in the past (α = .68) and sexual abuse (α = .59; Singer et al., 1999). In the present study, reported reliability based on Cronbach’s z for three factors derived from principal component analysis on the Recent Exposure to Violence items are presented in Table 1.

**Procedure**

Before the study was conducted, ethical approvals were received from the Provincial and District Directorates of National Education, and the school administrators were informed about the study. Then, the course schedules of the schools were examined and selected classes were identified for the data collection. In each class, the students were informed about the study’s aim and that their participation was voluntary and their answers were confidential. Written informed assent form was obtained from the students. The students were given 45 min to complete the surveys. (The investigator observed during the pilot study that this period was sufficient)

At the beginning of the study, all scales were translated into Turkish using an iterative process of translation. The standard forward–backward procedure was applied to translate scales from English into Turkish. First, researchers and two language experts translated the scale into standard Turkish, and then the final form was back-translated independently by a bilingual language expert. Back-translated form was sent to original author for relevance. After minor revisions, the final Turkish version of scales was constituted. In psychometric evaluation of scales, Cronbach’s α coefficients, factor analysis using Principal Component Technique, and total-item correlations were performed. Although minor discrepancies on factor structure were identified, Turkish versions of the scales were valid and reliable.

**Data Analysis**

The statistical data analysis was performed using Statistical Package for the Social Sciences (SPSS) 11.5 package program. Descriptive statistics (percentage and arithmetic mean) were used in determination of individual, educational, individual.
and family characteristics of the samples as well as their TV watching and computer use habits, violent behavior/ experiences. Chi-square test was used to analyze the effect of gender on violence experiences and violent behaviors. Logistic regression analysis was used in determination of the predictor factors contributing to aggressive behavior. Through use of Logistic regression analysis, we assessed the degree to which students’ violent behaviors could be explained by some variables. Doing this, three models were produced. The first model included individual and family characteristics. These were gender, age, family structure, status of disciplinary penalty, smoking and alcohol use, TV watching, and computer use habits. The second model contained six recent violence exposure variables and three past violence exposure variables. The third and final Logistic regression model, significant variables (three recent violence exposure variables, three past violence exposure variables, five individual and family characteristics including alcohol use, status of disciplinary penalty, family structure, age, and gender) determined in previous two models were entered, and thus predictor factors were determined.

### Results

#### Profile of the Participants

**The individual and educational characteristics of the students.**

The mean age was 15.82 ± 0.97 years in girls and 16.11 ± 0.99 years in boys in total 16 ± 0.99, 61.4% of the students were male (n = 494), 60.6% of the students were born in big cities (n = 488). Smoking was reported by 11.8% (n = 94), and 19.7% reported to alcohol use (n = 158). The most common hobbies were listening to music (n = 623; 77.7%), using computer (n = 617; 76.7%), and TV watching (n = 615; 76.5%). Approximately one third of the students (34.7%) were attending 11th grade (n = 279), 44.5% were average students in terms of success at school (n = 357), and 91.3% had received no disciplinary penalty (n = 731).

**Family characteristics of the students.** The majority (86.7%; n = 697) of participants had a nuclear family comprised of parents and children, one third of their fathers (39.9%; n = 320) and half of their mothers (52.2%; n = 418) had graduated from elementary school, 66% of them had average financial status (n = 525), more than half (68.6%; n = 536) had democratic family structures assessed by a question with multiple choice such as being democratic or not, 69.7% (n = 559) had good communication and relationships with their families and almost all (98.3%; n = 789) lived with their families as reported by students.

**TV watching habits of the students.** The mean time of TV watching was 3.51 hr per day, 46.6% (n = 355) said their favorite TV programs were comedies, and 51.8% (n = 413) believed that thematic programs and movies related to violence on TV led to aggressive behaviors in general.

**Computer using habits of the students.** The mean time of using the computer was 3.34 hr per day, 30.7% (n = 232) of the students said their favorite computer activity was chatting, and 52.8% (n = 420) also believed that the use of computer led to violent behaviors in general.

#### Univariate Analyses

**Self-Reported Aggressive Behavior**

Findings of students’ reports of their own violent behavior within the past year are presented in Table 2. Male students reported higher rates of violence toward others than did female students. Hitting others was reported to be a very common behavior for both genders. While the most common violent behavior of male students was “beating someone up” with the rate of 40.7% (n = 201), over one fourth of female students (n = 85) reported hitting someone after they were hit. Furthermore, males reported significantly higher levels of violent behavior than females except for threatened to hurt others (p < .05).

**Recent Exposure to Violence**

Across genders, student’s reports of being exposed to violence are presented in Table 3. Although female students reported higher percentages for slapping/hitting/punching and beating at home toward themselves, male students were more exposed to violence for other types than female students. In addition, a higher percentage of male students than female students being abused sexually within the past year with the rate of 21% (n = 66; p < .05). Although more serious forms of violence (i.e., shooting, knife attacks/ stabbing, gun pointing) were found in lower rates than other kind of violence, male students reported significantly higher levels of exposure to serious forms of violence (p < .05).

Rates of witnessing violence were high for both genders (Table 3). However, some differences were found in terms of genders. While female students reported higher rates of witnessed threats and some softer forms of violence (i.e.,

### Table 2. Distribution of Violent Behavior Within the Past Year (n = 805)

<table>
<thead>
<tr>
<th>Violent Behavior</th>
<th>Male (n = 494, %)</th>
<th>Female (n = 311, %)</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threatened to hurt others</td>
<td>27.5</td>
<td>24.4</td>
<td>.33</td>
</tr>
<tr>
<td>Hit someone before you were hit</td>
<td>34.4</td>
<td>21.9</td>
<td>.00</td>
</tr>
<tr>
<td>Hit someone after you were hit</td>
<td>35.0</td>
<td>27.3</td>
<td>.02</td>
</tr>
<tr>
<td>Beaten someone up</td>
<td>40.7</td>
<td>24.8</td>
<td>.00</td>
</tr>
<tr>
<td>Attacked/stabbed someone with a knife</td>
<td>9.1</td>
<td>0.6</td>
<td>.00</td>
</tr>
<tr>
<td>Shot at or shot someone with a real gun</td>
<td>7.1</td>
<td>0.6</td>
<td>.00</td>
</tr>
</tbody>
</table>

Note. *p < .05, Chi-square test.
slapping/hitting/punching) at school, male students witnessed more serious forms of violence (i.e., knife attacks/stabbings, shootings and sexual abuse; \(p < .05\)).

**Past Exposure to Violence**

Table 4 shows the past violence experiences of students. Across genders, students’ reports of being threatened or slapped/hit/punched and beaten were quite uniform. More serious forms of violence (knife attack/stabbing, shooting, and sexual abuse) were significantly higher among male students (\(p < .05\)). Female students only reported significantly higher levels of exposure to slapping/hitting/punching during their lifetimes (\(p < .05\)).

**Predictor Factors Contributing to Aggressive Behavior**

Among the violence exposure variables, being a past victim of violence was the most significant predictor of reported violent behaviors. Students who reported such victimization were over 3\(\frac{1}{2}\) times more likely to have reported exhibiting violent behavior than those who did not report being victimized in the past. In addition, being exposed to violence (as a witness/victim) in recent and past was one of the powerful predictors of reported violent behaviors. Interestingly, as use of daily computer time increased, so did the odds of reporting violent behavior compared to students who reported not using a computer daily. Witnessed/victimized shooting/knife attack both in past and recent as well as being male were found to be less significant predictors of reported violent behaviors (Table 5).

**Discussion**

The present study investigated the nature of violent behaviors and associations between violent behaviors and contributing factors identified from the literature among high school students from Turkey. Similar to previous studies (Eke & Ogel, 2006; Singer & Flannery, 2000), this study reports higher rates of violent behaviors among male than female students. Beating someone was the most frequently reported violent behavior by males (Alikasifoglu et al., 2004; Eke & Ogel, 2006).

Hitting after being hit is retaliatory violence, whereas hitting someone before you were hit is initiated violence. Female students had a tendency toward retaliatory violence. This could be associated with passive attitudes that were formed by societal role expectations. Female students in this

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**Table 3. Percentage of Students Exposed to Violence within the Past Year (n = 805)**

<table>
<thead>
<tr>
<th>Type of Violence</th>
<th>Victim</th>
<th>Witness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male (n = 494, %)</td>
<td>Female (n = 311, %)</td>
</tr>
<tr>
<td>Threats at home</td>
<td>54.9</td>
<td>45.1</td>
</tr>
<tr>
<td>Threats at school</td>
<td>71.4</td>
<td>28.6</td>
</tr>
<tr>
<td>Threats in the neighborhood</td>
<td>10.1</td>
<td>5.5</td>
</tr>
<tr>
<td>Slap/hit/punch at home</td>
<td>12.1</td>
<td>19.9</td>
</tr>
<tr>
<td>Slap/hit/punch at school</td>
<td>14.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Slap/hit/punch in neighborhood</td>
<td>6.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Beating at home</td>
<td>11.3</td>
<td>12.9</td>
</tr>
<tr>
<td>Beating at school</td>
<td>11.1</td>
<td>19.9</td>
</tr>
<tr>
<td>Beating in neighborhood</td>
<td>5.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Knife attack/stabbing</td>
<td>10.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Gun pointing</td>
<td>4.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Someone shot at or shot</td>
<td>5.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>21.3</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Note. *p < .05, Chi-square test.

**Table 4. Percentage of Students Exposed to Violence during Their Lifetimes (n = 805)**

<table>
<thead>
<tr>
<th>Type of Violence</th>
<th>Victim</th>
<th>Witness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male (n = 494, %)</td>
<td>Female (n = 311, %)</td>
</tr>
<tr>
<td>Threats at home</td>
<td>16.2</td>
<td>16.4</td>
</tr>
<tr>
<td>Slap/hit/punch</td>
<td>17.2</td>
<td>15.8</td>
</tr>
<tr>
<td>Beating</td>
<td>15.8</td>
<td>11.9</td>
</tr>
<tr>
<td>Knife attack or stabbing</td>
<td>11.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Shot at or shot</td>
<td>5.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>17.8</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Note. *p < .05, Chi-square test.
sample reported higher percentages of beating someone up and lower percentages for all other types of violence (attacked someone with knife and shooting) similarly as was reported in the Singer and Flannery's (2000) study.

According to results from the study (2008) conducted by Research Commission of TGNA in Turkey, male students reported that they had more exposure to violent events than females. This finding is similar to results of present study. Differences across gender were related to the location of the violence while boys were exposed to violence outside the home, girls were in more danger at home. Another study consisting of over 2,500 high school students found that boys were more exposed to all kinds of violence than girls (Ates & Yagmurlu, 2010). Kara, Hatun, Aydogan, Babaoglu, and Gokalp (2003) also found that the rate of sexual abuse was 9.7% among high school students and there was similarly higher levels of sexual abuse for boys than girls. These results from Turkey suggest that different societal role expectations are generated for boys and girls. While girls in Turkish society, like many countries, are primarily raised with expectations of being passive and empathic, boys are socialized with expectations of being strong, capable of using force, and able to talk and act aggressively (Aras, 2007; Kaner, 2001). Girls may have avoided reporting abusive behaviors to themselves—particularly sexual oriented—with the fear of being responsible or fear the abuser. This can be a reason for different rates between genders.

In the current study, the rate of being exposed to violence in the past was closer both in boys and in girls. An adoption of authoritarian attitude within family to discipline children is often encountered in many cultures (i.e., use of threats). Turkish cultural characteristics and traditions show that aggressive behaviors such as slapping/hitting have been adopted (Topbas, 2004; Turkish Grand National Assembly Commission (TGNA) for Investigating Increasing Violence Tendencies in Children and Youth, 2008). In Turkey, corporal punishment is occasionally used as a strategy in the education of children. Children who witness the use of violence for discipline both in home and in school may assume that violence is a natural form of problem solving in adulthood. These assumptions and strategies could explain the increasing of violence in schools and homes (Deveci, Karadag, & Yılmaz, 2006).

Significant contributors determined to the prediction of violent behavior in present study are similar to previous studies. A study conducted by Singer et al. (1999; USA) found the primary predictors of students’ self-reported violent behaviors to be demographic characteristics (gender, grade level, parental education, and socioeconomic status), lack of parental monitoring, television viewing and exposure to recent and past violence. In a study conducted by the TGNA Research Commission (2008) examining violence in secondary schools in Turkey, the primary correlate of increased use of physical violence among students was determined as previous exposure to violence. Horman, Hansen, Cochain, and Lindsey (2005) found that the children who used the Internet frequently and frequently played computer games had a significant deterioration in their social development, had low self-esteem and high social concerns and aggressive behavior. A major task of transition from childhood to adolescence is the transition from family to peers. This task requires students to make decisions independently from their family, and is often accompanied by difficulties in managing feelings and social relationships. Therefore, the information obtained and relationships experienced in virtual environments may negatively affect a youth’s normal development if they become substitutes for face-to-face relationships in schools, homes, and neighborhoods (Kelleci, 2008).

As a last point in our study, “being male” was also effective on aggressive behavior. Numerous studies on child aggression noted that male gender was prone to display violent behaviors (Alikasifoglu et al., 2004; Giles, & Heyman, 2005; Orpinas, Murray, & Kelder, 1999; Rabiner, Coie, Miller-Johnson, Boykin, & Lochman, 2005).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Options</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>Sig.</th>
<th>Odds</th>
<th>%95 CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent witnessed/victimized shooting/knife attack (Ref: No)</td>
<td>Yes</td>
<td>0.578</td>
<td>0.229</td>
<td>6.382</td>
<td>0.012</td>
<td>1.783</td>
<td>[1.138, 2.792]</td>
</tr>
<tr>
<td>Recent victimized at home (Ref: No)</td>
<td>Yes</td>
<td>0.782</td>
<td>0.239</td>
<td>7.865</td>
<td>0.004</td>
<td>2.186</td>
<td>[1.369, 3.489]</td>
</tr>
<tr>
<td>Witnessed violence in the past (Ref: No)</td>
<td>Yes</td>
<td>1.086</td>
<td>0.218</td>
<td>24.932</td>
<td>0.000</td>
<td>3.690</td>
<td>[2.425, 5.616]</td>
</tr>
<tr>
<td>Witnessed/Victimized shooting/knife attack in the past (Ref: No)</td>
<td>Yes</td>
<td>0.596</td>
<td>0.247</td>
<td>5.835</td>
<td>0.016</td>
<td>1.815</td>
<td>[1.119, 2.943]</td>
</tr>
<tr>
<td>Witnessed violent in the past (Ref: No)</td>
<td>Yes</td>
<td>1.306</td>
<td>0.214</td>
<td>37.158</td>
<td>0.000</td>
<td>3.690</td>
<td>[2.425, 5.616]</td>
</tr>
<tr>
<td>The amount of daily computer use (Ref: I don’t use computer)</td>
<td>Less than an hour and two hours</td>
<td>0.910</td>
<td>0.363</td>
<td>6.289</td>
<td>0.012</td>
<td>2.484</td>
<td>[1.220, 5.059]</td>
</tr>
<tr>
<td></td>
<td>3–6 hr</td>
<td>1.052</td>
<td>0.375</td>
<td>7.865</td>
<td>0.005</td>
<td>2.864</td>
<td>[1.373, 5.973]</td>
</tr>
<tr>
<td></td>
<td>More than 6 hr</td>
<td>1.247</td>
<td>0.471</td>
<td>7.024</td>
<td>0.08</td>
<td>3.480</td>
<td>[1.384, 8.751]</td>
</tr>
<tr>
<td>Gender (Ref: Female)</td>
<td>Male</td>
<td>0.449</td>
<td>0.192</td>
<td>5.491</td>
<td>0.019</td>
<td>1.567</td>
<td>[1.076, 2.281]</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>1.512</td>
<td>1.521</td>
<td>0.988</td>
<td>0.320</td>
<td>0.220</td>
<td></td>
</tr>
</tbody>
</table>

Note. \( \chi^2 = 305.460; df = 15. \)
\( p = .00 < .05. \)
Limitations
These results are representative of this sample and thus cannot be generalized. Furthermore, no attempts were made to measure attitudes toward aggression and violence that may be specific to Turkish culture in current study. This study is based on the self-reports of high school students to assess the aggressive behaviors and contributing factors of violent behaviors. Further studies are needed to determine their attitudes to violent behavior among high school students. Nevertheless, this study represents one of the largest investigations on the contributing factors to aggressive behavior in an important research area.

Implications for School Nursing Practice
This study was conducted to determine the types and rates of aggressive behaviors among the high school students in Turkey and the key contributors to such behaviors. The identification of violence behavior types and the factors that contribute to them will be beneficial in the development of programs to protect the youth from negative behavior patterns. By fashioning empirically informed interventions and implementing them in a developmentally appropriate manner, these improvements in behavior may be possible. Although the prevention of violence is a universal problem, the manner in which prevention strategies are formed and implemented should take into consideration differences among nations/cultures. In conclusion, as a frontline health care provider, the school nurse has an important role to identify and protect students who are exposed to violence in their homes, neighborhood, and school. It is clear that these students need assistance in dealing with violence. This assistance may include learning problem-solving skills, conflict resolution techniques, anger management, and development of positive self-concept. School nurses can lead the school health team and school staff to ensure safety for the young people. Interdisciplinary efforts with parents, teachers, school administrators, and communities are needed to achieve the best strategies for violence prevention among high school students. With screening, students who are exposed to violence during their lifetime might be identified in a timely way. In addition, collaborative efforts should be identified between family and school staff in connection with students displaying problematic behavior. Future studies using both qualitative and quantitative designs should focus on the determination of the perceptions of violent behavior among young people and their families.

Declaration of Conflicting Interests
The author(s) declared no conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

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