Adverse Consequences of Crime Victimization for School-Aged Girls in South Korea

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Abstract: Crime victimization is one of the most stressful negative events and brings numerous adverse outcomes to victims. Victims suffer from physical damage, property loss, psychological trauma, and behavioral problems. Many studies have examined these adverse consequences of crime victimization, but a comprehensive approach for victims who are school-aged girls has been relatively under-documented. To fill the gap in the literature, this study analyzes data from a nationally representative sample of Korean school-aged girls (N = 3762). The results of the regression analyses indicate that previous victimization is associated with lower life satisfaction, increased negative emotions, and a fear of crime, and appears to elevate the risk of revictimization and delinquent behavior. It is concluded that victims should be treated with appropriate resources and support to reduce future adverse outcomes.

Keywords: victimization; school-aged girls; negative emotion; life satisfaction; delinquent behavior

1. Introduction

Criminal victimization is a stressful event known to bring numerous adverse consequences that undermine the quality of one’s life (Janssen et al. 2021; Webb and Wills-Herrera 2012). For instance, criminal victimization can cause damage to one’s property (i.e., material loss), physical harm (i.e., injuries), and psychological distress (i.e., frustration or fear) (Hanson et al. 2010; McGarry and Walklate 2015; Skogan 1987). These impacts may result in changes in social behavior, daily routines, or even the life course of the victims (Macmillan 2001). Some studies also report a higher likelihood of victims committing deviant behavior due to the intensified strains caused by crime victimization (Agnew 2002; Hay and Evans 2006; Lin et al. 2011; Moon et al. 2008).

This adverse life event can happen to almost anyone, especially vulnerable populations such as female adolescents (e.g., Faris and Felmlee 2014). According to the World Health Organization’s (World Health Organization 2021) Violence Against Women Report 2021, about 736 million women have been subjected to physical and/or sexual violence at least once in their lifetime. This number accounts for 31% of the global female population. Furthermore, the negative consequences of crime victimization can be magnified for women. For instance, female adolescents who experienced bullying are more likely to engage in self-harming behaviors, including suicidal ideation and attempts, compared to their male counterparts in China (Yang et al. 2021). Therefore, criminal victimization has become a critical threat to the well-being and human rights of women, making it imperative to study the various consequences of crime victimization for women (Kaya and Cook 2010). In addition, children and juveniles are the most vulnerable segment of the population to crime victimization and the impact is severe and critical for these populations (Finkelhor 2008;
Macmillan 2001; Turanovic 2019). Thus, it is imperative to study the adverse consequences of crime victimization for female adolescents. However, a comprehensive examination of the effects of crime victimization on women, especially female adolescents, has not been abundant (Angelone et al. 2018; Shin 2011; Teten et al. 2009).

Taken together, this study aims to examine the adverse consequences of crime victimization among female adolescents in non-Western societies. For this study, a crime victimization survey was analyzed targeting adolescents in South Korea, where school crime have raised significant concerns about students’ well-being. In Korea, the prevalence of bullying victimization is assumed to contribute to high suicide rates among juveniles (Han and Connell 2021; Kwak and Ickovics 2019; Moon and Morash 2017). Using data from a nationally representative sample of female adolescents, this study is designed to fill gaps in the previous literature in two ways. First, by focusing exclusively on female adolescents, it assesses the negative consequences of crime victimization for this demographic. Second, it aims to examine various adverse outcomes of crime victimization, including negative emotions, life satisfaction, the fear of crime, continuous victimization, and delinquent behavior. For this purpose, the next section will discuss the literature regarding the consequences of crime victimization for women.

2. Background

2.1. Crime Victimization and Adverse Consequences

Research on the negative effects of crime victimization has distinguished emotional, psychological, and behavioral reactions among victims. First, many studies have focused on the adverse effects of crime victimization on victims’ well-being, such as happiness or life satisfaction (Cheng and Smyth 2015; Cohen 2008; Hanson et al. 2010; Janssen et al. 2021; Kuroki 2013; Moore et al. 2012; Sulemana 2015). For instance, Hanslmaier (2013) analyzed data from a nationwide German survey and found that individuals who experienced crime victimization are less likely to perceive satisfaction with their lives.

More problematically, victims tend to suffer from negative psychological emotions such as anxiety disorders, depression, or anger due to the significant trauma caused by crime victimization (Boudreaux et al. 1998; Green et al. 2005; Kilpatrick et al. 1987; Riggs et al. 1992; Yap and Devilly 2004). Specifically, the memory of the unpleasant moments of crime victimization jeopardizes the physical and mental health of the victim (Hochstetler et al. 2014; Pearlin et al. 2005). For instance, Reisig et al. (2018) examined the relationship between criminal victimization and depressive symptoms and found that victims reported higher depressive symptoms, particularly among older adults. Moreover, this psychologically adverse impact of crime victimization may persist not just for a few days or weeks, but also for months or years (Norris and Kaniasty 1994; Russo and Roccato 2010). Victims may occasionally recall traumatic events, or they may experience secondary traumatic consequences by reading news articles or watching television shows about crime victimization (Maercker and Mehr 2006).

Other studies have focused on the fear of crime as one of the adverse consequences of crime victimization (Fox et al. 2009; Noble and Jardin 2020; Russo and Roccato 2010; Skogan 1987). The fear of crime is a psychological and social concern about the possibility of becoming a victim of crime (Collins 2016), and victimization is closely and directly linked to the fear of crime because victims may believe that they are at high risk for further victimization (Skogan and Maxfield 1981; Smith and Hill 1991). The link between victimization and the fear of crime has received substantial empirical support from the previous literature (Noble and Jardin 2020; Rader et al. 2007; Russo and Roccato 2010; Tseloni and Zarafonitou 2008). Findings have revealed that previous crime victimization is a major predictor of higher levels of fear of crime.

The behavioral reactions to victimization are of particular interest in victimization consequence research, especially regarding the repeated victimization and deviant behavior of victims. Some studies have argued that initial victimization is likely to lead to revictimization for victims (Finkelhor et al. 2007; McIntyre and Spatz Widom 2011; Widom et al. 2007; Widom and Finkelhor 2005).
For instance, individuals who have experienced crime victimization tend to develop negative coping mechanisms to deal with strain or stress, making them more prone to further victimization. Examples include juveniles running away from home or frequent substance use among those with traumatic victimization. (Kim et al. 2009; Ruback et al. 2014; Tyler and Johnson 2006). For instance, Ruback et al. (2014) examined the mechanism of initial victimization and revictimization among teenagers. Their findings revealed that victimization predicted violent offenses, delinquency, and drug use among victims. Additionally, the link between victimization and revictimization is mediated by these criminal behaviors.

A line of studies examined the negative behavioral reactions of victims through the lens of the general strain theory, arguing that the intensified strain from crime victimization can pressure individuals into adopting more criminal coping mechanisms (Button 2016; Hay and Evans 2006; Manasse and Ganem 2009; Moon et al. 2012; Oh and Connolly 2019). The general strain theory (Agnew 1985, 1992) argues that various sources of strain (e.g., failure to achieve desired goals, the removal of positive stimuli, and the presence of negative stimuli) lead to a variety of negative coping mechanisms, including deviant behavior, and crime victimization is considered a critical strain that is most likely to lead to deviant behavior (Agnew 2002). Taken together, the previous literature has articulated the various adverse consequences of crime victimization, including an undermined quality of life, negative emotions, the fear of crime, revictimization, and deviant behavior.

2.2. Consequences of Crime Victimization for Women

Though it is widely understood that men are more prone to crime victimization than women, women are particularly vulnerable to certain types of crime victimization, including rape and physical assault by intimate partners. These types of victimization can lead to significant consequences, such as mental disorders and physical health issues (Koss et al. 1991). For instance, approximately one out of every six women has been raped, while six times fewer men reported that they have experienced rape victimization in the USA (Tjaden and Thoennes 2006). Expanding globally, it is estimated that almost one in three women aged 15 and older have experienced intimate partner violence and rape, with adverse consequences such as anxiety disorders and HIV being more prevalent among women who have experienced crime victimization compared to those who have not (World Health Organization 2021).

Many studies have also reported the severe consequences of crime victimization among women (Demaris and Kaukinen 2005; Logan et al. 2002). For instance, the female victims of sexual violence are likely to suffer from physical or sexual health problems such as sexually transmitted diseases, negative emotional reactions, social relationship issues, and/or economic hardships (Basile and Smith 2011). Similarly, women tend to experience more strain and fear due to crime victimization, and higher levels of strain resulting from these negative feelings may exacerbate the consequences of being a crime victim (Aneshensel 1992; Broidy and Agnew 1997; Ngo and Paternoster 2016). For instance, Velamuri and Stillman (2008) examined the effects of victimization on both men and women, finding that women who experienced crime victimization are less likely to engage in conventional social activities such as marriage, while there is no significant effect for male respondents. Andrews et al. (2003) also found that women victims exhibit higher levels of PTSD compared to their male counterparts and are more sensitive to negative responses from family and friends.

2.3. Crime Victimization and Its Consequences for Korean Youth

Crime victimization among adolescents has generated significant concerns regarding the safety and well-being of students both in and out of schools in South Korea. This concern has been heightened following several cases where students have tragically taken their own lives due to severe bullying victimization within school environments. (Han and Connell 2021; No et al. 2023). Recent statistics from the Korean School Victimization
Survey indicate that approximately 1.9% of Korean students, out of a total of 3.1 million respondents, reported experiencing victimization. Furthermore, the survey revealed that female students received less support from schools, teachers, and peers compared to their male counterparts (Ministry of Education 2023).

Several studies have examined the impact of crime victimization on Korean students. For instance, Noh (2013) examined the consequences of crime victimization among Korean youth and found its significant impacts on lower levels of life satisfaction. Similarly, Shin (2011) discovered that rape or attempted rape victimization was associated with poor self-esteem and negative attitudes towards sex. Moon et al. (2012) studied longitudinal data within a general strain framework and found that bullying victimization is linked to negative emotions such as anger and the perpetration of bullying. Furthermore, an indirect relationship between bullying victimization and suicidal ideation through negative emotions was observed among Korean adolescents (Cho 2023). Students who experience bullying victimization often struggle with high levels of negative emotions, which can lead to increased suicidal ideation. Taken together, studies have reported that victimization can create adverse consequences for Korean youth. However, a comprehensive approach to exploring these impacts has rarely been utilized. Specifically, focusing on female adolescents, who often perceive higher levels of fear of crime in Korea (Lee and Park 2022), will be beneficial for expanding the understanding of the various adverse impacts of crime victimization among school-aged girls in South Korea.

3. Current Study

This study aims to examine the various consequences of crime victimization for school-aged girls. While much of the literature on the consequences of crime victimization for women has focused on the impact of intimate partner violence, sexual assault, or abusive parenting on later deviant behavior, the effects of crime victimization for school-aged girls have been relatively less documented. Accordingly, this study analyzes data from a national sample of South Korean students. Specifically, this study is designed to examine various adverse outcomes of crime victimization, including satisfaction with life, negative emotion, the fear of crime, revictimization, and delinquent behavior among Korean school-aged girls. Based on findings from the previous literature and theoretical frameworks such as the general strain theory, this study hypothesizes the following, even as we explore the various consequences of crime victimization:

**H1.** Previous victimization decreases levels of life satisfaction.

**H2.** Previous victimization results in increased negative emotions.

**H3.** Previous victimization increases the fear of crime.

**H4.** Previous victimization raises the risk of revictimization.

**H5.** Previous victimization elevates the risk of delinquent behavior.

4. Method

4.1. Data

For this study, secondary data from the Korean Youth Victimization Survey (Hong and Yeon 2014) conducted in 2014 were analyzed. The Korean Institute of Criminology conducted a victimization survey targeting school-aged youth (aged between 13 and 18) to explore various crime-related topics, including crime victimization and perpetration, the fear of crime, and the effects of victimization. Utilizing a national multi-stage stratified cluster sampling method, 1546 out of 2336 schools in Korea were contacted, and 158 schools (10.2%), including 77 middle schools and 81 high schools, participated in the survey. In each selected school, students from two classes were sampled and responded to survey questions.
about crime victimization both in and out of schools, delinquent behavior, peer relationships, parenting, and school climate via an online portal (Hong and Yeon 2014). A total of 7109 school-aged youths participated in the survey. For this study, only female students were included in the analysis to assess the adverse consequences of crime victimization for school-aged girls. Finally, a total of 3762 female respondents were included in the analysis. The data are available at the Korea Social Science Data Archive (https://kossda.snu.ac.kr (accessed on 1 March 2024)).

4.2. Measures

Dependent variables: To assess the adverse consequences of crime victimization, we examined several dependent variables, including satisfaction with life, negative emotion, fear of crime, revictimization, and delinquent behavior.

Satisfaction with life: The students were asked about their satisfaction with life across three dimensions: individual, relationship, and institutional. For each dimension, one question was posed (e.g., I am satisfied with personal aspects of my life, including my accomplishments, personality, and health), with the responses recorded on a seven-point Likert scale ranging from 1 (not at all) to 7 (great deal). Cumulative scores for the three questions were calculated, with higher scores indicating greater satisfaction with the respondent’s life (factor loadings > 0.82, Cronbach’s alpha = 0.91).

Negative emotion: To assess the psychological consequences of crime victimization, negative emotions were measured using three questions regarding the frequency of experiencing negative feelings, including frustration, unpleasantness, and lethargy. The students were asked to indicate how often they had these feelings over the past month (e.g., This question asks about the emotions you have experienced over the past month. Please indicate how often you felt the following emotions.), with the response options provided on a seven-point scale ranging from 1 (not at all) to 7 (always). The responses for the three questions were summed, with higher values indicating greater negative emotion (factor loadings > 0.73, Cronbach’s alpha = 0.848).

Fear of crime: Multiple items were used to assess the respondents’ levels of fear of crime. These items included questions about the fear of victimization for 21 different crime types, including violent, property, and school crimes (e.g., I fear being threatened or assaulted by someone and having my money or belongings taken away). The responses were collected using a five-point Likert scale, and the aggregated responses indicating higher values signified higher levels of fear of crime (factor loadings > 0.71, Cronbach’s alpha = 0.98).

Current victimization: To assess the effects of previous victimization on revictimization, current victimization experience was measured. The respondents were asked whether they have experienced victimization for 14 crime types, including being threatened, having any property stolen, being assaulted, or being bullied. Each question was measured with a binary response (yes = 1), and a summative index was created, with higher values indicating more types of victimization experience in the prior year.

Delinquent behavior: The students were asked about their participation in delinquent behavior over the past year, which included violent behavior (e.g., assault, robbery, and threatening), property crime (e.g., burglary, fraud, and stealing), and school crime (e.g., bullying). A total of 14 questions were asked, and the students who answered yes to each question were coded as yes = 1. The responses were summed, with higher scores indicating more types of delinquent behavior among the respondents.

Independent variable: Previous victimization: The respondents were asked about their experience with various types of crime victimization in their lifetime up to the prior year. Consistent with the current victimization measurement strategy, questions regarding violent, property, and school crimes were included. A total of 14 questions were used to capture previous victimization experience (e.g., being threatened, having any property stolen, being assaulted, or being bullied), with each dichotomous item coded as yes = 1. The responses were summed, with higher values indicating more previous victimization.
Control variables: To address other important confounding factors in the analysis, this study utilized six control variables. **Low self-control**: Self-control is one of the widely examined predictors of crime and victimization (e.g., Pratt et al. 2014; Vazsonyi et al. 2017). Individuals with low self-control tend to prioritize immediate gratification, leading to greater engagement in criminal behavior (Gottfredson and Hirschi 1990). Studies have also identified self-control as a significant predictor of life satisfaction (e.g., Hofmann et al. 2014) and fear of crime (e.g., Higgins et al. 2008). The respondents were asked to indicate their level of agreement with statements such as ‘I tend to do enjoyable things regardless of future consequences’, ‘I prefer immediate rewards over future rewards’, and ‘I tend to do whatever I want, even if it makes others unhappy’. A four-point Likert scale was provided, and a summative index was created, with higher scores indicating lower self-control (factor loadings > 0.42, Cronbach’s alpha = 0.749).

**Stress**: Stress is considered to play a role in explaining criminal behavior, either directly or indirectly (Felson et al. 2012; Hofmann et al. 2014). Individuals experiencing higher levels of stress may be more inclined toward a crime-prone lifestyle or deviant behavior. Additionally, in reaction to stress, individuals may develop more negative emotions, such as depression or frustration (Feldman et al. 1999). Four items assessed the level of stress the respondents generally experience related to academic performance, relationships with parents, parenting, and peer relationships (e.g., I feel stressed by my parents due to my academic performance). The respondents were provided with a four-point Likert scale option, and the summed scores indicating higher values reflected greater stress in respondents’ lives (factor loadings > 0.43, Cronbach’s alpha = 0.806).

**Parental attachment**: The relationship of juveniles with their parents influences many aspects of their lives, including academic performance, emotional status, and/or criminal behavior (Bögels and Brechman-Toussaint 2006; Hoeve et al. 2012). The respondents were asked to rate how close and attached they feel to their parents using eight items (e.g., my parents and I try to spend a lot of time together), with a four-point Likert scale response ranging from 1 (not at all) to 4 (great deal). The eight items were aggregated, with higher scores indicating greater attachment to parents (factor loadings > 0.77, Cronbach’s alpha = 0.942).

**Teacher attachment**: Similar to parental attachment, the relationship with teachers for juveniles is assumed to influence various facets of students’ lives (Bergin and Bergin 2009; Demanet and Van Houtte 2012). Three questions assessing how close and attached the respondents feel to their teachers were utilized, and the aggregated scores represent the level of teacher attachment (factor loadings > 0.79, Cronbach’s alpha = 0.87). Two socio-demographic factors were considered for the study. Age was measured in years, and monthly household income was measured using eight response options ranging from less than KRW one million (about USD 1000) to more than KRW five million (about USD 5000 or more).

4.3. Analytic Approach

A series of regression analyses were conducted to assess the adverse consequences of crime victimization for Korean school-aged girls. Initially, ordinary least squares regression analysis was employed for satisfaction with life, negative emotion, and the fear of crime, considering the nature of these dependent variables. Subsequently, a set of negative binomial regression models were utilized to account for the count nature of the dependent variables: victimization and delinquent behavior. Both victimization and delinquent behavior were measured by the number of crime types the respondents experienced or committed. Given the potential over-dispersion and the need for accurate coefficient estimates, negative binomial regression models were chosen for these analyses.

5. Results

The descriptive statistics, presented in Table 1, illustrate the characteristics of the sample population. When it comes to previous crime victimization, only a small percentage of the respondents reported having experienced it. Approximately 14.8 percent of the
students (557) had experienced some form of crime victimization in their lifetime. The most common type of crime victimization was property crime, such as theft, with 231 respondents (6.14%) reporting they had experienced property crime victimization in their lifetime prior to the past year. Examining the possible consequences of victimization, the respondents generally reported feeling satisfied with their lives (mean = 15.6, range = 3 to 21). However, many respondents also expressed negative emotions (mean = 12.04, range = 3 to 21). Regarding crime, the students held some level of fear (mean = 42.67, range = 21 to 105), and 699 students, accounting for 19% of the sample, reported experiencing at least one type of crime victimization in the past year. The most common type of crime victimization was property crime, such as theft, with 267 respondents (7.1%) reporting they had experienced property crime victimization in the past year. In addition, a relatively small number of the students reported participating in any type of delinquent behavior in the past year. About 14% of the sample (537 students) reported at least one type of delinquent behavior. The average age of the sample population was 15.52 years, with a mean household income of around KRW three million (about USD 3000).

Table 1. Sample descriptive statistics (N = 3762).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with Life</td>
<td>15.06</td>
<td>4.05</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Negative Emotion</td>
<td>12.04</td>
<td>4.11</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Fear of Crime</td>
<td>42.67</td>
<td>19.92</td>
<td>21</td>
<td>105</td>
</tr>
<tr>
<td>Current Crime Victimization</td>
<td>0.32</td>
<td>0.87</td>
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<td>10</td>
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<tr>
<td>Previous Victimization</td>
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<td>1.13</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Delinquent Behavior</td>
<td>0.21</td>
<td>0.63</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Low Self-Control</td>
<td>15.32</td>
<td>3.25</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Stress</td>
<td>8.03</td>
<td>2.75</td>
<td>4</td>
<td>16</td>
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<tr>
<td>Parental Attachment</td>
<td>24.42</td>
<td>5.17</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>Teacher Attachment</td>
<td>7.40</td>
<td>2.25</td>
<td>3</td>
<td>12</td>
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<tr>
<td>Age</td>
<td>15.52</td>
<td>1.17</td>
<td>13</td>
<td>18</td>
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<tr>
<td>Household Income</td>
<td>5.56</td>
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<td>8</td>
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</table>

Table 2 displays the results of the bivariate correlation analysis. The results indicate that previous victimization is significantly associated with all the dependent variables. Specifically, life satisfaction is negatively correlated with previous victimization, while negative emotions, the fear of crime, current victimization, and delinquent behavior are positively correlated with previous victimization. Among the other control variables, high degrees of correlation were not observed, alleviating concerns about multicollinearity.

Table 2. Correlation matrix (N = 3762).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>0.31</td>
<td>0.04</td>
<td>0.12</td>
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<td>-0.03</td>
<td>0.02</td>
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<tr>
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<td>0.14</td>
<td>0.24</td>
<td>0.24</td>
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Note. *p < 0.05.

The results of the regression analyses for satisfaction with life, negative emotion, and the fear of crime are presented in Table 3. In the satisfaction with life model, previous
victimization showed a significant association with satisfaction for the school-aged girls. As students experienced more types of previous victimization, their satisfaction with life decreased ($b = -0.11, p < 0.05$). Among the control variables, all except low self-control showed significant relationships with satisfaction with life. Stress ($b = -0.26, p < 0.001$) and age ($b = -0.25, p < 0.001$) had negative relationships, while parental attachment ($b = 0.18, p < 0.001$), teacher attachment ($b = 0.3, p < 0.001$), and household income ($b = 0.11, p < 0.001$) had positive associations with satisfaction with life. Higher levels of stress and older age were associated with lower life satisfaction, while parental attachment, teacher attachment, and household income were associated with higher life satisfaction for the school-aged girls. The R-squared value indicates that about 18% of the variance in the dependent variable is explained by the factors included in the model. Second, the results of the negative emotion model indicate that previous victimization increases the negative emotions of the respondents, with the relationship being statistically significant ($b = 0.18, p < 0.001$). All the control variables also show significant associations with the negative emotions of the respondents. Low self-control ($b = 0.16, p < 0.001$), stress ($b = 0.27, p < 0.001$), and age ($b = 0.37, p < 0.001$) increase levels of negative emotion, while parental attachment ($b = -0.06, p < 0.001$), teacher attachment ($b = -0.21, p < 0.001$), and household income ($b = -0.09, p < 0.001$) are negatively associated with negative emotion. The model explains about 12% of the variance in negative emotion among respondents.

Table 3. Results of OLS regression (N = 3762).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Satisfaction of Life</th>
<th>Negative Emotion</th>
<th>Fear of Crime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>z</td>
<td>Coef.</td>
</tr>
<tr>
<td>Previous Victimization</td>
<td>-0.11</td>
<td>-2.12 *</td>
<td>0.18</td>
</tr>
<tr>
<td>Low Self-Control</td>
<td>-0.01</td>
<td>-0.37</td>
<td>0.16</td>
</tr>
<tr>
<td>Stress</td>
<td>-0.26</td>
<td>-11.09 ***</td>
<td>0.27</td>
</tr>
<tr>
<td>Parental Attachment</td>
<td>0.18</td>
<td>14.37 ***</td>
<td>-0.06</td>
</tr>
<tr>
<td>Teacher Attachment</td>
<td>0.30</td>
<td>10.69 ***</td>
<td>-0.21</td>
</tr>
<tr>
<td>Age</td>
<td>-0.25</td>
<td>-4.86 ***</td>
<td>0.37</td>
</tr>
<tr>
<td>Household Income</td>
<td>0.11</td>
<td>3.7 ***</td>
<td>-0.09</td>
</tr>
<tr>
<td>Constant</td>
<td>13.80</td>
<td>14.28 ***</td>
<td>5.22</td>
</tr>
<tr>
<td>R-squared (adjust)</td>
<td>0.18 (0.18)</td>
<td>0.12 (0.12)</td>
<td>0.07 (0.07)</td>
</tr>
<tr>
<td>F-value</td>
<td>120.16 ***</td>
<td>72.73 ***</td>
<td>44.32 ***</td>
</tr>
</tbody>
</table>

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The next model shows that previous victimization plays a significant role in explaining the fear of crime for school-aged girls. As students have more types of previous victimization experience, their levels of fear of crime increase ($b = 0.90, p < 0.01$). Regarding the control variables, low self-control ($b = 0.50, p < 0.001$) and stress ($b = 1.49, p < 0.001$) have positive associations with fear of crime, while parental attachment ($b = -0.14, p < 0.05$) and household income ($b = -0.82, p < 0.001$) show significant negative relationships with fear of crime. However, teacher attachment and age do not have significant effects on fear of crime. It is noteworthy that previous victimization is a significant predictor for all three dependent variables.

Next, two models using negative binomial regression analyses were conducted for current victimization and delinquent behavior. For these models, Incident Rate Ratio (IRR) estimates are presented. IRR greater than one indicates a positive association, while IRR below one indicates a negative relationship. The results of the current victimization model show that previous victimization increases the likelihood of students experiencing current victimization (IRR = 1.48, $p < 0.001$). Students with more types of previous victimization are more likely to experience more types of current victimization. Regarding the control variables, stress predicts a higher likelihood of current victimization (IRR = 1.15, $p < 0.001$), while teacher attachment (IRR = 0.94, $p < 0.001$) and age (IRR = 0.89, $p < 0.01$) reduce the likelihood of victimization.
Lastly, the results of the model for delinquent behavior show that previous victimization increases the likelihood of students committing more types of delinquent behavior ($\text{IRR} = 1.17, p < 0.001$). Students with more types of previous victimization experience are more likely to commit more types of delinquent behavior compared to those without such experience. Among the control variables, low self-control ($\text{IRR} = 1.1, p < 0.001$) and stress ($\text{IRR} = 1.07, p < 0.001$) increase the likelihood of more types of delinquent behavior, while parental attachment ($\text{IRR} = 0.96, p < 0.001$) and teacher attachment ($\text{IRR} = 0.93, p < 0.01$) are associated with a reduced likelihood of committing delinquent behavior (see Table 4).

Table 4. Results of negative binomial regression ($N = 3762$).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Current Victimization</th>
<th>Delinquent Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IRR</td>
<td>$z$</td>
</tr>
<tr>
<td>Previous Victimization</td>
<td>1.48</td>
<td><strong>10.60</strong>*</td>
</tr>
<tr>
<td>Low Self-Control</td>
<td>1.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Stress</td>
<td>1.15</td>
<td><strong>9.32</strong>*</td>
</tr>
<tr>
<td>Parental Attachment</td>
<td>0.99</td>
<td>−0.64</td>
</tr>
<tr>
<td>Teacher Attachment</td>
<td>0.94</td>
<td>−3.56***</td>
</tr>
<tr>
<td>Age</td>
<td>0.89</td>
<td>−3.20**</td>
</tr>
<tr>
<td>Household Income</td>
<td>0.99</td>
<td>−0.72</td>
</tr>
<tr>
<td>Constant</td>
<td>0.64</td>
<td>−0.68</td>
</tr>
<tr>
<td>Log Likelihood</td>
<td>−2429.36</td>
<td></td>
</tr>
<tr>
<td>LR chi2 (16)</td>
<td>356.01***</td>
<td></td>
</tr>
</tbody>
</table>

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

6. Discussion

Crime victimization can be a traumatic event that brings a massive volume of stress and physical harm to victims. Previous studies have reported various adverse consequences of victimization, and female victims of certain types of crime report more negative outcomes such as PTSD or self-harming behavior. This study is designed to examine the adverse effects of crime victimization on school-aged girls in South Korea by focusing on female respondents from a nationally representative sample. We note two notable findings in the study.

First, we were able to identify that previous victimization showed significant associations with all the adverse consequences examined in the study. Previous victimization brings considerable harm to victims, including undermining their quality of life, increasing negative emotions, heightening fear of crime, raising the likelihood of revictimization, and leading to more delinquent behavior. In line with the findings of victimization studies, especially from South Korean samples (e.g., Moon et al. 2012; Cho 2023), which show heightened levels of anger and suicidal ideation, this study confirmed that the adverse consequences of crime victimization are not limited to immediate and direct outcomes such as physical harm or property loss. They also include long-lasting psychological harm and behavioral problems. Thus, victims should be provided with appropriate resources such as counseling, family support, or positive peer relations to minimize the effects of victimization (Bilsky et al. 2013; Rudolph et al. 2020). These resources should be consistent and long-lasting, rather than limited to one- or two-time counseling sessions, to provide careful and effective care to victims (Sims et al. 2006). For instance, a systematic review of school-based interventions for child and adolescent victims concluded that cognitive behavioral therapy-oriented programs are the most common approach for victim care and well-designed programs can significantly reduce mental health problems such as depression and trauma in child and adolescent victims (Wichmann et al. 2023). In South Korea, the current victim care supports are mainly provided by the teachers or parents of victims. Therefore, the involvement of more professional personnel, such as school resource officers, can help victims in need find available resources and prevent future victimization (Hong and Choo 2018). School resource officers (or school police officers) can be consistent
service providers for school-aged female victims due to their education-oriented activities and counseling responsibilities in schools (Han and Connell 2021). Trained officers can provide victim-oriented counseling programs while delivering the message that victims are protected.

Second, regarding ways to reduce the negative effects of victimization, the significant effects of parental attachment and teacher attachment suggest methods to mitigate these effects. Parental attachment and teacher attachment, as perceived by students, decrease negative emotions, the fear of crime, the chance of being revictimized, and delinquent behavior while increasing satisfaction with life. Increased levels of parental and teacher attachment may offset the adverse consequences of victimization or moderate its effects (Desjardins and Leadbeater 2011; Garnefski and Kraaij 2014). The victims of negative life events seek care and support, and significant individuals in their lives, such as teachers, friends, or family, can provide meaningful assistance (Westmaas and Silver 2001). For instance, the school-oriented bullying prevention and victim care program ‘Viennese Social Competence (ViSC),’ implemented in Austria, highlights the role of teachers in implementing the program. This program trains teachers to recognize bullies and victims and engage in structured conversations and interactions (Strohmeier et al. 2023). Similarly, a study examining victimization trajectories of Korean youth reported that students who experience positive relationships and meaningful interactions with their teachers are less likely to be subjected to repetitive victimization (Lee and Kim 2017). Meaningful interactions between teachers and victims can help students cope with their strain in more constructive ways while guiding them to appropriate resources and support, and conveying the message that they will be protected from further victimization. Therefore, schools should create more supportive learning environments and train teachers to be effective providers of victim care.

In sum, the present study provides a more comprehensive picture of the consequences of crime victimization by analyzing nationally representative data for school-aged girls in South Korea. The empirical evidence underlines the severity of the effects of crime victimization as well as the importance of relationships with teachers and parents for victims.

The study is, however, not without limitations. First, this study analyzed cross-sectional data. With cross-sectional data, it is hard to isolate the effects of an independent variable from other confounding effects. In addition, the causality in the mechanism is not fully maximized. Even though students were asked about their previous victimization with a set of retrospective questions, the validity of the measurement and the temporal order between previous victimization and current victimization are not clearly set. Similarly, the effects of prior involvement in delinquent behavior among students are not considered in the model. Given the common overlap between victimization and offending behaviors, it is important to account for the effects of prior delinquent behavior as well. Second, the analysis of the current study did not identify the complicated mechanism linking previous victimization to adverse consequences. For instance, studies rooted in the general strain theory framework argue that victimization will lead to delinquent behavior due to intensified strain through negative emotions. Negative emotions such as anger or depression can be a direct consequence of victimization as well as a mediator between crime victimization and future delinquent behaviors. In this regard, future studies should shed light on various mechanisms explaining the path from victimization to adverse consequences. Lastly, since this study analyzed secondary data, it did not account for a wider range of adverse outcomes related to crime victimization. Additionally, the measurement strategies for key concepts, such as life satisfaction or negative emotions, were not as valid as those using validated scales. Therefore, future studies should develop their own surveys and collect a broader array of information using valid scales.

In closing, crime victimization for school-aged girls is a complex social problem that threatens the well-being of victims. We generally understand that victimization is detrimental to victims in many aspects, so it is imperative to study the diverse consequences of victimization. The current study found that victimization brings great harm to victims.
Therefore, it is important for future studies to examine how victimization leads to various harms to enhance our understanding of the mechanisms of the adverse consequences of victimization and provide more practical implications for victims.

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**References**


Bergin, Christi, and David Bergin. 2009. Attachment in the classroom. *Educational Psychology Review* 21: 141–70. [CrossRef]


Lee, Seong-Sik, and Cheong Sun Park. 2022. SNS online victimization and fear of crime: Including the moderating effects of disorder, collective efficacy, and gender difference. Victims & Offenders 17: 831–47.


Maercker, Andreas, and Astrid Mehr. 2006. What if victims read a newspaper report about their victimization? A study on the relationship to PTSD symptoms in crime victims. European Psychologist 11: 137–42. [CrossRef]


Moon, Byongook, and Merry Morash. 2017. A test of general strain theory in South Korea: A focus on objective/subjective strains, negative emotions, and composite conditioning factors. Crime and Delinquency 63: 731–56. [CrossRef]


Noble, Julien, and Antoine Jardin. 2020. From victimization to fear: Fear of crime and its variations among victims. The British Journal of Criminology 60: 468–89. [CrossRef]


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