Victimization of Adolescents by Parental Abuse and School Violence: A Moderated Mediation Model of Self-esteem and Growth Mindset

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Abstract

The purpose of this study was to investigate the mediating effect of self-esteem and moderating effect of growth mindset on the relationship between parental abuse and school violence victimization among 350 adolescents in Korea. For the analysis, we used SPSS Win.21.0 and SPSS MACRO process, and carried out reliability analysis, descriptive statistics, correlation analysis, mean comparison analysis, path analysis, and bias correction bootstrap. First, all the variables had a significant correlation. Parental abuse victimization was positively correlated with school violence victimization, and was negatively correlated with self-esteem and growth mindset. Second, the growth mindset has a buffering effect that moderates indirect effects between the parental abuse and school violence victimization through self-esteem. These results can be used as a new model showing that parental abuse victimization in adolescents reduces school violence victimization through the interaction of self-esteem and growth mindset.
1 INTRODUCTION

Mindset is an attitude toward success and failure. It can be defined as a belief in being able to change one's own abilities and intelligence in order to achieve goals (Dweck, 2006). Mindset also influences individual behavior and cognition in situations where it is difficult to predict achievement (Dweck, 2006). Bandura and Dweck (1981) divided students' beliefs about their abilities into entity theory and incremental theory (Dweck, 1988). Entity theory means the belief that intelligence is fixed and innate, and cannot be changed even with effort, but the incremental theory implies a belief that intelligence can be changed, by acquiring new characteristics and by enough effort. In other words, entity theory is called fixed mindset and incremental theory is called growth mindset (Dweck, 2006).

Self-esteem is defined as the degree to which an individual thinks him/herself to be able, successful, valuable, and important. A person with high self-esteem can self-confidently, actively, and creatively play (Coopersmith, 1981). Self-esteem forms, develops, and changes throughout the whole life of human beings, but adolescence is especially a crucial time to form self-esteem (Sim, 1998). School violence and abuse victimization are critical variables affecting the self-esteem of adolescents and negative influences on them.

Domestic violence means all violence in the home by a family member (Straus, 1990) and includes all threatening behavior, such as economic threats, as well as physical, psychological, and sexual assault (Ganley, 1995). Domestic violence has a negative effect on adolescents’ self-esteem formation (Jo, 2012) and increases their chances of being victimized by school violence (Olweus, 1994; Turner et al., 2010; Chung, 2008). In addition, the home environments of adolescents have been found to be important variables predicting violence (Do, 2008).

School violence is defined as the state in which one student is harassed or injured by one or more other students continuously and repeatedly (Olweus, 1997).

There are several studies of the relationship between parental abuse, School violence victimization, Self-esteem, Growth mindset, Adolescent, SPSS macro PROCESS, Moderated mediation effect.
abuse and school violence victimization (Olweus, 1994; Turner et al., 2010; Chung, 2008), but there are none on when and how self-esteem and mindset develop. Therefore, this study was conducted to find out whether the mediating effect of self-esteem is moderated by the growth mindset in how parental abuse affects school violence victimization.

To achieve this goal, first of all, what are the correlations between parental abuse and school violence victimization, self-esteem, and growth mindset? Second, does the growth mindset moderate the indirect effects of self-esteem in the relationship between parental abuse and school violence victimization?

2 METHOD

2.1 Research model

The main analytical method of this study is the analysis of the moderated mediator effect of Model 7 of the MACRO process. The conceptual study model is shown in Figure 1.

![Fig. 1.Conceptual research model](image)

2.2 Survey subjects and methods of data collection

From April to August 2016, we surveyed 350 middle- and high-school students in S city of Chungnam province located in the western area of South Korea. The subjects were 61.4% women and 38.6% men, 54.0% high-school students and 35.0% middle-school students. 51.6% were medium in the family income level, 28.5%
were generous, 12.7% were very generous, 6.1% were insufficient, and 1.2% were very insufficient.

2.3 Research tools

2.3.1 Parental abuse victimization

The parental abuse victimization scale used four items from the family violence scale of Bae (2013). This scale can measure the degree of verbal, emotional, mild physical, and serious physical violence. Measurement was scored on a 5-point Likert scale ranging from not at all to highly agree. The higher the score, the greater the parental abuse victimization, and the overall reliability in this study was Cronbach’s $\alpha = 0.807$.

2.3.2 School violence victimization

The school violence victimization scale consisted of a total of seven items that Cho (2014) used based on the survey data of the Korea Child and Youth Panel on the types of violence and victimization of school violence. We added an item related to cyber violence. Cho (2014) used the scale to measure the number of experiences per year, but in this study, we reconstructed the Likert 5-point scale from "not at all" to "always". Higher scores mean more school violence victimization. The overall reliability of Cronbach’s $\alpha$ in this study was 0.913.

2.3.3 Self-esteem

Self-esteem was measured by the Self-Esteem Scale (RSES) developed by Rosenberg (1965). The scale consists of ten items, from "not at all" to "highly agree" and was measured on a 5-point Likert scale. The higher the score, the higher the self-esteem. The overall reliability of Cronbach’s $\alpha$ in this study was 0.746.

2.3.4 Growth mindset

We measured growth mindset by means of a scale developed by Dweck (2006) and used by Lee et al., (2016). The scale consisted of four items measuring beliefs about change in intelligence and four
items measuring beliefs about change in personality, on a Likert-type scale with values that ranged from 1 point to 5 points. The higher the score, the higher the growth mindset. The reliability of the growth mindset in this study was Cronbach’s $\alpha = 0.735$.

2.4 Data analysis

In this study, we used SPSS Win.21.0 and SPSS macro PROCESS, as proposed by Hayes (2013)(http://www.afhayes.com). Reliability analysis, descriptive statistics, and correlation analysis were performed using SPSS Win. 21.0. We used the SPSS macro process to analyze the moderated mediation effect, and verified the model by applying bootstrapping. Fig. even at the beginning of a sentence. Do not abbreviate Table. Tables are numbered with Arabic numerals.

3 RESULTS AND DISCUSSION

3.1 Correlation and descriptive statistics

Table 1 shows the results of Pearson’s correlation analysis used to identify correlations between variables. There was a statistically significant correlation between the variables. Parental abuse was positively correlated with school violence victimization. The results are in line with a study showing that school violence victimization is correlated with domestic violence (Espelage et al., 2012; Park, 2014; Jo, 2017), and that there is a significant positive correlation between adolescent domestic abuse and bullying victimization (Cho, 2013).

Parental abuse was negatively correlated with self-esteem and growth mindset. This is supported by studies showing that the domestic violence experienced by adolescents has a negative correlation with self-esteem(Park and Park, 2014; Yoon and Han, 2015; Kim and Jo, 2016). There was a positive correlation between self-esteem and growth mindset, but there was a negative correlation between self-esteem and school violence victimization. This is in line with studies showing that victims of school violence had lower self-esteem (Olweus, 1993), and victimization by emotional school violence was negatively correlated self-esteem (Kim, 2014).

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In detail, the highest correlation coefficient, \( r = 0.529 \), was between the self-esteem and the growth mindset, and the correlation coefficient between parental abuse and school violence victimization was \( r = 0.480 \). In other words, the higher the growth mindset, the higher the self-esteem, and the higher the victimization by parental abuse or school violence, the lower the growth mindset and self-esteem.

The mean of self-esteem and growth mindset exceeded the middle point (3 points), and parental abuse and school violence victimization did not exceed the middle point.

Table 1. CORRELATION AND DESCRIPTIVE STATISTICS

<table>
<thead>
<tr>
<th></th>
<th>Parental Abuse Victimization</th>
<th>School Violence Victimization</th>
<th>Self-esteem</th>
<th>Growth Mindset</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Abuse</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1.44</td>
<td>.60</td>
</tr>
<tr>
<td>School Violence</td>
<td>- .196 **</td>
<td>- .301 **</td>
<td>1</td>
<td></td>
<td>1.25</td>
<td>.21</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>- .184 **</td>
<td>- .306 **</td>
<td>- .329 **</td>
<td></td>
<td>3.49</td>
<td>.61</td>
</tr>
<tr>
<td>Growth Mindset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.55</td>
<td>.65</td>
</tr>
</tbody>
</table>

**p<.01

3.2 Model Verification

3.2.1 Verification of statistical model

The results of the statistical model are shown in Figure 2. Parental abuse victimization had negative effects on self-esteem (\( \beta = -0.1984 \), p< .001), and school violence victimization had a statistically significant effect (\( \beta = 0.3322 \), p< .001). These results are supported by the studies showing that the experience of domestic violence causes the low self-esteem of adolescents (Jo, 2012), that experience of child abuse leads to harm in peer relationships (Chung, 2008), and that children who were victims of child abuse were more likely to be victims of other violence (Turner et al., 2010).

Self-esteem (\( \beta = -0.8124 \), p< .001) and growth mindset (\( \beta = -0.7863 \), p< .001) had significant negative effects on school violence victimization. This result is line with studies showing that self-esteem has a positive effect on psychological and emotional prob-
lems, interpersonal difficulties, and problem-solving ability (Lee et al., 2009) and that a fixed mindset tends to easily fall into frustration and lethargy (Dweck, 2006).

These results confirmed that self-esteem has a mediating effect on the relationship between parental abuse and school violence victimization.

The interaction between self-esteem and growth mindset was found to have a statistically significant effect on school violence victimization ($\beta = .1839, p < .01$).

3.2.2 Verification of moderating mediation effect

The results of the verified moderating mediation effect and model are shown in Table 2 and Figure 3. Parental abuse victimization had a positive effect on school violence victimization via self-esteem, and growth mindset had a moderating mediating effect on self-esteem. In other words, as the parental abuse victimization increases, the self-esteem decreases, which increases the school violence victimization. As the moderating variable growth mindset increases, the buffering effect of decreasing the positive mediating effect gradually appeared. The experience of domestic abuse victimization has been closely related to the low self-esteem of adolescents (Jo, 2012), who may be vulnerable to other violence through familiarity with situations and helplessness (Finkerlhoret al., 2009; Cohen and Mannarino, 1996; Schwartz et al., 1993). Therefore, depending on the growth mindset, this effect will vary.

As a result of analyzing the conditional effect of the independent variables on the dependent variables in the moderating variable, the simple slope of the parental abuse victimization on the school violence victimization showed that growth mindset was significant
at the level of 2.90 (M-1SD) to 3.56 (M). The moderated mediation effect is larger in the growth mindset value of M-1SD than in M+SD and M. Therefore, as the value of the moderating variable, growth mindset, increases, the magnitude of the moderated mediation effect decreases.

Table 2. MODERATING MEDIATION EFFECT OF GROWTH MINDSET

<table>
<thead>
<tr>
<th>Variables</th>
<th>$b$</th>
<th>SE</th>
<th>t-value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Abuse → Self-esteem</td>
<td>-0.864</td>
<td>0.122</td>
<td>-7.257</td>
<td>.0002</td>
</tr>
<tr>
<td>Self-esteem → School Violence Victimization</td>
<td>-0.8124</td>
<td>0.159</td>
<td>-5.159</td>
<td>.0002</td>
</tr>
<tr>
<td>Parental Abuse → School Violence Victimization</td>
<td>0.222</td>
<td>0.0302</td>
<td>7.404</td>
<td>.0000</td>
</tr>
<tr>
<td>Growth Mindset → School Violence Victimization</td>
<td>-0.7053</td>
<td>0.049</td>
<td>-14.372</td>
<td>.0001</td>
</tr>
<tr>
<td>Self-esteem x Growth Mindset → School Violence Victimization</td>
<td>0.159</td>
<td>0.055</td>
<td>2.812</td>
<td>.009</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conditional indirect effect</th>
<th>$b$</th>
<th>Boot SE</th>
<th>Boot LCI</th>
<th>Boot UCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-1SD (z = 0.006)</td>
<td>.0554</td>
<td>.0321</td>
<td>.0214</td>
<td>.1009</td>
</tr>
<tr>
<td>M (z = 0.001)</td>
<td>.0314</td>
<td>.0223</td>
<td>.0129</td>
<td>.0643</td>
</tr>
<tr>
<td>M+1SD (z = 2.129)</td>
<td>.0075</td>
<td>.0210</td>
<td>.0040</td>
<td>.0242</td>
</tr>
</tbody>
</table>

Boot LLCI = boot The lower bound of the indirect effect within the 95% confidence interval Boot ULCI = boot The higher bound of the indirect effect within the 95% confidence interval

![Fig. 3. A model of moderated mediation effect](image)

4 CONCLUSION

This study was conducted to investigate the moderated mediating effects of self-esteem and growth mindset on the relationship...
between parental abuse and school violence victimization in 350 Korean adolescents. The conclusions are as follows.

First, all the variables had a significant correlation. Parental abuse victimization was positively correlated with school violence victimization, and was negatively correlated with self-esteem and growth mindset.

Second, growth mindset moderates the indirect effect between parental abuse and school violence victimization through self-esteem. In other words, parental abuse victimization affects self-esteem, which is a negative factor in school violence victimization. However, even if parental abuse is experienced, the interaction of self-esteem and growth mindset will buffer this negative effect. Especially, the smaller the value of growth mindset, the larger the moderating mediation effect. This suggests that, even if the level of growth mindset is high, school violence victimization and the loss of self-esteem will continue to worsen unless the parental abuse victimization is reduced.

Although not covered in this study, suggestions for future research are as follows.

Parental abuse has been identified and verified as influencing school violence victimization via self-esteem. However, it is necessary to study the pathways and relative influence by studying the psychological variables that indirectly affect victimization by parental violence.

Despite these limitations, it is meaningful that this study verified an important variable that buffers the indirect effect of self-esteem in the relationship between growth mindset, parental abuse victimization, and school violence victimization in adolescents.

References


